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SOAP

with which is included

Insecticide & Disinfectant Review

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JULY
1930

SOAP

The Editor's Page

Volume Five
Number Eleven

Business

ONCE again, the stock market has passed through a severe sinking spell and scared most business men half to death. The slump in security prices has been laid to the unusual depression in the commodity markets, tariff uncertainty, poor earnings, and bear selling. With the passage of the tariff act, and the removal of any uncertainty about the new rates, the actual enactment of the law was interpreted in a bearish light. Most everything which has happened has been put forward as a reason or an excuse for stock prices to go lower. Good news has been consistently ignored, and the smallest piece of bad news has been magnified into the proportions of a business calamity. Where there has been no gloom, it has been readily manufactured for the occasion.

Business has been slow as is quite generally admitted. It has been slow before,—considerably slower than it is today,—and industry has recovered. A break in the stock market, and the effect which this usually has on the confidence of business, came in the midst of commodity prices at the lowest ebb of some years. Corporation reports for the first half of the year show material reductions in earnings compared to 1929.

The present pessimism may be warranted in many cases. However, we are inclined to feel that the downward movement in commodities and securities has been somewhat overdone. Prices for most things have gone too low; the pendulum has taken a rather more violent-than-usual swing in one direction. Where there are 120,000,000 people living up to the ordinary American standard, eating, sleeping, playing, and consuming goods in tremendous quantities, it is very difficult to lose faith in the quick resiliency of general business in this country.

Redoubled sales efforts have been the answer of some houses when orders have come harder. To sit back and wait for the so-called slump to end, to reduce sales activity, is certainly the surest way to get the full effects of unfavorable conditions, be it in good times or bad.

Fats Are Cheap!

STOCKS of fats in consumers' tanks are quite generally admitted to be large. Buyers who covered heavily two or more months ago, most certainly did not expect to see anything like the present prices, the lowest in fifteen years. There has been comparatively limited opportunity for most buyers to take advantage of the bottom prices except for current needs owing to stocks already in storage. This in itself has been an important factor in depressing further an already depressed market. The relationship between values, cost of production, prices, and other economic factors has been completely disarranged.

Another six months of anything like present conditions will hit oil and fat production the world over the hardest blow which it has ever received. As is always the case, the blow will eventually react to the disadvantage of consumers. If the whaling fleets of the world produce another tremendous tonnage this year plus an anticipated increase, the effects may be disastrous to other oil and fat producing groups. If the whalers can get £25 per ton again this year, there is the likelihood of another record output. But with fat prices generally scraping bottom, will the buyers pay that price this year? At a lower figure, whaling might not be so interesting from the financial angle. Or will the consumers pay £25 and encourage a big production for its effect in keeping all fat prices down?

The entire fat and oil situation is well scrambled right at the moment. Out of the maze of mixed influences, however, one fact stands out —irrespective of what has gone before and what is likely to follow, fats as a whole are dirt cheap. It is difficult to see how buying right up to the limit could be wrong. The shrewdest buyers the country over covered at a cent or more above current figures, and before their stocks are worked off, they will probably find that their judgment was fundamentally sound. The current market certainly has the appearance of a lifetime opportunity for buyers. Depression-hysteria has been chiefly responsible for driving prices under production

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costs. This should not be allowed to influence good sound judgment of values based on years of experience. Fats are cheap—whether they go up, down, or sidewise over the next few months—they are still dirt cheap, too cheap in fact for the ultimate good of the consumer.

The Tariff

NOW that the new tariff rates have become law, we note the usual procession of crepe hangers passing by with doleful comment. If we are to believe some newspaper editorial writers, the passage of the tariff has irreparably injured the future of American business. If we look back to 1922, the memory of dire predictions of a like nature which accompanied the passage of the Fordney-McCumber Tariff Act, will be recalled. The predictions of a breakdown in domestic trade and a loss of export business made in 1922 were followed by eight years of unusual prosperity and an unprecedented expansion in export sales.

If the rates in the new tariff act are examined more closely, those which have changed appreciably will be found to be a very small minority. The rates on most items have not been revised at all. Those who have raised the strongest objections to the new act apparently have overlooked this small detail. Some comment which we have noted would lead one to believe that a sweeping increase in all rates has been foisted on the people by Congress. Of course, the perfect tariff act has never been written, and never will be as long as it is formulated by political traders. Some rates are faulty and without rhyme or reason, but all in all, we do not see that the act is to any extent as black as it has been painted.

The soap industry in particular accomplished what it went out to do,—to prevent a sharp blanket increase in all oil and fat rates. It asked for no tariff favors, and it received none. Its position remains essentially the same as before the eighteen months of tariff discussion.

To Control Bergamot Oil Industry

As a result of representations made by producers concerning the precarious condition of the bergamot oil industry in Reggio Calabria, it is reported that the Italian Government has decided to intervene in order to control the quality of oil destined for export and for the purpose of encouraging improved methods of bergamot cultivation. The general plan includes the establishment of a warehouse in Reggio Calabria to receive deposits of bergamot oil, the obligatory issue by a Government laboratory of a certificate of analysis as a guaranty of the purity of oil destined for export, and the faculty accorded producers to form an association for the defense of the industry.

The right to operate a fleet of six whaling vessels and a floating factory for the extraction of whale oil along the entire western coast of Mexico has recently been granted to a United States citizen by the Mexican government. The concession involves payment of 600 pesos a month and a bond of 20,000 pesos. A stipulation in the agreement provides against the killing of young whales.

William L. Counse, Washington representative of American Manufacturers of Toilet Articles, was present at a conference held recently by Department of Commerce at which it was decided to undertake an intensive study of drug store merchandising methods. The survey will be centered in St. Louis, and its aim will be to find out a great many things about a few stores rather than a few things about a larger number of stores.

A recent ruling of the Circuit Court of Appeals for the Third Circuit stops Jacob M. Jacobs from ejecting the Iodent Chemical Co. from the New Jersey territory in which Jacobs had sold a tooth paste called "Iodent" at his store in Paterson, N. J., before the Iodent Co. entered the field. The court ruled that when one owning a trade mark fails within a reasonable length of time to project his business and mark in a territory he cannot preempt that territory forever. Jacobs will thus be stopped from collecting damages which he charges against the Iodent Co. as a result of infringement.

Imports of crude glycerine into United States during April, 1930, totaled 1,410,399 lbs., worth $89,829, while imports of refined glycerine were 286,863 lbs., valued at $24,918. The following figures give in pounds the imports of glycerine into United States over a period of years:

	Refined	Crude
1923.....	585,792	14,548,660
1924.....	1,500,644	14,427,054
1925.....	2,059,565	19,248,695
1926.....	10,732,246	27,701,142
1927.....	8,268,071	14,784,615
1928.....	4,287,587	4,501,727
1929.....	5,493,421	14,488,676
Jan.-Apr. 1930	605,041	2,493,224

Analytical Methods for SOAP and GLYCERIN

By A. K. CHURCH*
Chief Chemist, Lever Brothers Co.

URING the year the committee has completed its work on the analysis of the A. O. C. S. crude glycerin standard sample. The accepted analysis reflects accurately, we believe, within the limits of the method, the correct analysis of this sample when carried out by the International Acetin Method for crude glycerin adopted 1911. Never before has there been available in the United States a crude glycerin sample of authenticated analysis. The committee feels that such a sample will be found of value to all laboratories engaged in glycerin work. This A. O. C. S. standard crude glycerin sample is for sale by J. C. P. Helm, Sec. A. O. C. S., 705 Tchoupitoulas St., New Orleans, La., at one dollar a four-ounce bottle. The complete analysis is printed on the label. A detailed report of the committee's work on this sample appeared in *Oil & Fat Industries,* Dec., 1929.

The Soap Section Committee recommends that in the printed standard methods of the A. O. C. S. reference be made to the IAM for crude glycerin as the method for crude glycerin analysis adopted by our Society.

Standardization of the Acid Reagent

IN connection with work on the crude glycerin sample, methods of standardization of the acid reagent used were discussed at considerable length, two methods being presented in detail in the report of the committee's work published in *Oil & Fat Industries,* Dec., 1929. It is the consensus of opinion of the members that explicit directions for standardizing the acid are inadvisable for the reason that qualified chemists know how to prepare standard acids accurately—if they do not, they are not competent to carry through the Acetin Method. Also the I. S. M. Committee of 1911 did not consider it necessary to recommend a standard method.

On the other hand a minority opinion has been expressed that it is generally admitted that identical and specific procedures tend towards closer checks between different laboratories and encourage more careful and accurate work in all laboratories. That this is the age of standardization in all things and especially in methods of physical and chemical tests. That if it be desirable, for example, to recommend a standard method for the simple operation of determining the free fatty acids in an oil, it would seem decidedly more desirable and important to recommend a specific method of preparing the standard acid used in the free fatty acid determination, since the correctness of the FFA determination depends primarily on the correctness of the standardization of the acid.

A specific method for standardizing acid employed in oil, soap, and glycerin analysis, using the A. O. C. S. standard sodium carbonate now available and of which there is an ample supply, might be worth considering by the Uniform Methods Committee.

The laboratories that sent in results on the soap follow: (The laboratories are not listed in the order of the analysis.)

Fels & Co., Philadelphia, Pa.
LaFrance Mfg. Co., Philadelphia, Pa.
Lever Brothers Co., Cambridge, Mass.
Lever Brothers Ltd., Toronto, Canada.
Larkin Co., Inc., Buffalo, N. Y.
Kirkman & Son, Brooklyn, N. Y.
Dr. Foster D. Snell, Brooklyn, N. Y.
Swift & Co., Chicago, Ill.
Mellon Institute, University of Pittsburgh, Pittsburgh, Pa.
Curtis & Tompkins, San Francisco, Cal.
Procter & Gamble, Ivorydale, Ohio.
The Palmolive Co., Milwaukee, Wis.
Colgate-Palmolive-Peet Co., Berkeley, Cal.
Los Angeles Soap Co., Los Angeles, Cal.

The standard methods for the analysis of soap adopted by the American Chemical Society and approved by our own Society, were employed in this work. The results are, in respect to some items, in your chairman's opinion, unsatisfactory. Mr. Peterson, secre-

*Report of Soap Section Committee before American Oil Chemists' Society, New Orleans. A. K. Church, chairman, Soap Section, 1929-30.

A. O. C. S. Standard Soap Sample Calculated to Dry Basis

	1	2	3	4	5
Per Cent Fatty Anhydrides	85.68	85.94	86.10	86.03	86.45
Per Cent Combined Alkali (Na_2O)	10.07	10.01	10.11	10.07	10.095
Per Cent Unsaponifiable Matter	0.92	0.15	0.60	0.74	0.312
Per Cent Unsaponified Fat	0.67	0.93	Nil	N.F.	0.01
	87.27	87.02	86.70	86.77	86.772
Per Cent Glycerol	0.32	0.35	0.38	0.405	0.415
Per Cent Free Caustic Soda (Na_2O)	Nil	Trace	Nil	Nil	Trace
Per Cent Fatty Acids as Oleic	Nil	None	Nil	Nil	None
Per Cent Silica (SiO_2)	1.36	1.37	1.48	1.46	1.551
Per Cent Carbon Dioxide in IIA	0.21	0.22	0.21	0.061	0.091
Per Cent Total Alkalinity of Matter Insoluble in Alcohol calc. as Na_2O	0.77	0.82	0.81	0.88	0.83
Per Cent Sulphates calc. as Sodium Sulphate (Na_2SO_4)	Nil	0.04	0.03	0.009	0.04
Per Cent Chlorides calc. as Sodium Chloride (NaCl)	0.22	0.20	0.27	0.223	0.283
	100.22	100.03	99.99	99.878	100.077
Constants of Total Fatty Acids including unsaponified and unsaponifiable:					
Titre	40.4	40.48	40.45	40.4	39.90
Saponification Value	207.2	206.55	203.7	204.7	204.75
Iodine Number	59.8	60.60	60.1	59.86	57.77

	6	7	7a	8	9
Per Cent Fatty Anhydrides	87.10	86.31	86.22	87.48	86.40
Per Cent Combined Alkali (Na_2O)	10.04	10.00	10.03	10.07	10.08
Per Cent Unsaponifiable Matter	0.78	0.41	0.61	0.21	0.44
Per Cent Unsaponified Fat	Nil	Nil	Nil	0.22	0.02
	87.88	86.72	86.83	87.91	86.86
Per Cent Glycerol	0.37	0.32	0.35	0.24	0.35
Per Cent Free Caustic Soda (Na_2O)	0.009	0.02	.017	None	Nil
Per Cent Fatty Acids as Oleic	Nil	Nil	Nil	None	Nil
Per Cent Silica (SiO_2)	1.28	1.46	1.37	0.48	1.52
Per Cent Carbon Dioxide in IIA	..	0.34	0.31	0.17	0.072
Per Cent Total Alkalinity of Matter Insoluble in Alcohol calc. as Na_2O	0.92	0.87	0.83	0.75	0.80
Per Cent Sulphates calc. as Sodium Sulphate (Na_2SO_4)	Nil	0.009	.010	None	0.041
Per Cent Chlorides calc. as Sodium Chloride (NaCl)	0.25	0.20	0.23	0.35	0.26
	100.749	99.939	99.977	99.97	99.983
Constants of Total Fatty Acids including unsaponified and unsaponifiable:					
Titre	40.2	40.5	40.4	40.55	39.75
Saponification Value	200.85	204.9	204.8	203.80	204.90
Iodine Number	..	60.7	60.4	59.50	57.20

	10	11	12	13	14	Ave.
Per Cent Fatty Anhydrides	86.38	86.04	86.15	86.30	85.80	86.29
Per Cent Combined Alkali (Na_2O)	10.07	11.01	9.93	10.11	10.22	10.13
Per Cent Unsaponifiable Matter	0.46	0.19	0.15	0.18	0.43	0.44
Per Cent Unsaponified Fat	0.01	0.10	0.15	0.28	0.57	0.20
	86.85	86.33	86.45	86.76	86.80	86.93
Per Cent Glycerol	0.38	0.336	0.33	0.43	0.25	0.35
Per Cent Free Caustic Soda (Na_2O)	Nil	0.05	Trace	Nil	.062	Trace
Per Cent Free Fatty Acids as Oleic	Nil	Nil	Nil	Nil	Nil	Nil
Per Cent Silica (SiO_2)	1.56	1.482	1.66	1.44	1.40	1.39
Per Cent Carbon Dioxide in IIA	0.075	Trace	0.06	0.23	....	0.136
Per Cent Total Alkalinity of Matter Insoluble in Alcohol calc. as Na_2O	0.81	0.421	0.73	0.75	0.720	0.780
Per Cent Sulphates calc. as Sodium Sulphate (Na_2SO_4)	0.039	0.049	0.025	0.06	0.04	0.026
Per Cent Chlorides calc. as Sodium Chloride (NaCl)	0.25	0.214	0.26	0.27	0.21	0.246
	100.034	99.892	99.445	100.05	99.702	99.988
Constants of Total Fatty Acids including unsaponified and unsaponifiable:						
Titre	40.30	40.75	40.20	40.0	39.00	40.21
Saponification Value	204.77	199.95	203.4	200.9	204.30	203.95
Iodine Number	59.48	60.74	.....	55.5	63.80	59.65

tary of the Soap Section, comments, in part, as follows:

" . . . the results are far from satisfactory with respect to agreement in some of the individual items, while in others the agreement seems to be fairly close. Would this not seem to indicate that the methods of some of these items are at fault?

"It seems to me that the laboratories who have worked on this sample are capable of close agreement where the methods in use are capable of producing checking results. This is borne out by the work on the glycerin sample where very good agreement was obtained."

The chairman feels that improvement of the present standard method for determining the unsaponifiable matter and the unsaponified fat in soap is indicated as desirable by the above results.

Soap Sample

FOURTEEN laboratories submitted analyses of the soap sample, one laboratory sending two, each by a different analyst, making fifteen results received. The analyses are shown on the opposite page.

Standardization of Reagents for the International Acetin Method for Crude Glycerin

DURING the course of our work on the crude sample your chairman's attention was called by a committee member to the fact that if the true glycerol, organic residue, and ash figures of the accepted analysis were added together, and the moisture determined and added thereto, instead of totaling approximately 100 the sum amounted to only about 98.5% showing about 1.5% unaccounted for. This discrepancy was confirmed in the chairman's laboratory on the determination of the water in our standard crude glycerin sample. Then a sample of C. P. glycerin certified to by the British Executive Committee (see below) and employed in England for the standardization of reagents used in the International Standard Methods for crude glycerin was procured. Its specific gravity was determined; also the total acetylizable as glycerol by the Acetin Method; also the glycerol by the bichromate method. The percent of glycerol from the sp. gr., using the Bosart & Snoddy tables, was 90.40; by the Acetin Method 88.86%. Here again is an unaccounted for difference of about 1.5%. The percent of glycerol by the bichromate method was 90.39 confirming the results from the sp. gr. tables.

Throughout the world crude glycerin is bought and sold on the International Acetin Method analysis. In the United States, we have thus far stuck to the use of a standard acid as the control agent, as originally specified by the International Committee in 1911. In Great Britain, however, the British Executive Committee under date of January, 1914, in "Supplement No. 1 (I. S. M. 1911)" in respect of the "Standardization of Re-agents" recommend that "The final standardization is to be carried out upon Chemically Pure Glycerin in which the water content has been accurately determined." Chemically Pure Glycerin of standard quality is supplied bearing the seal and label of the British Executive Committee.

At the time the unaccounted for loss by the Acetin Method was brought to your chairman's attention he was not acquainted with the action of the British Committee in 1914 in adopting the use of C. P. Glycerin for standardizing the reagents used in the Acetin Method. He has since been informed that the reason for this action by the English chemists in 1914 was the unaccountable loss noticed by them when using the Acetin Method as promulgated in 1911. So it would appear that we have rediscovered this same unaccounted for loss not realizing that it had already been discovered and action taken upon it by our English brothers.

This unaccounted for loss by the Acetin Method is now before the Soap Section Committee for their consideration. Some members have expressed the opinion that the Acetin Method is simply a measure of the OH groups whether these be present as glycerol or other compounds. Therefore, how can any sample of C. P. Glycerin be selected for standardization purposes with the assurance that it is absolutely definite in its glycerol content inasmuch as there may be other OH groups present? Again, since the Acetin Method is used as a standard for glycerol in buying and selling, the question whether it gives a true glycerol content or not is not important commercially but only of academic interest. The question, therefore, seems to be, so some of the committee have expressed themselves, whether the Committee as a whole would be sufficiently interested in an academic problem to spend much time on it.

On the other hand, other members have expressed a desire to investigate this apparent discrepancy; and most of the laboratories have indicated a willingness to work on this problem to the extent their facilities and time permit. Your chairman is one of those who cannot feel comfortable until this unaccounted for loss shown by the Acetin Method, when using standard acid as the controlling reagent, is explained, or, if not explained, rectified.

The chairman and secretary wish to thank each member of the committee and each co-

(*Turn to Page* 85)

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Say you saw it in SOAP!

Soap Markets in the Orient

A Study of Soap Production, Sales Methods, Prices, and Consumption Habits in China and Japan

By WALTER BUCHLER

THE past twenty years have witnessed a remarkable development in the use of soap among all classes of Chinese. It has been said that Chinese do not do a great deal of washing of themselves or their clothes, but this is not strictly the case. The greatest demand in China is for the coarser and cheaper grades of soap such as common laundry soap. This is due to the small amount the average Chinese can afford to spend even on the bare necessities of life. Laundry soap is the all-purpose toilet and household soap for the Chinese.

Before the introduction of foreign soaps into China, the Chinese used soap (and still do in many places) made from pods of the soap tree, which is found in the provinces of Hupeh, Hunan, Kiangsu, and other places in China. The pods are allowed to dry, then steeped in water for two hours, and then beaten into a pulpy mass and the seeds and fibres removed. This mass is made into cakes and then marketed. Ordinary washing as well as toilet scented soaps are made by the Chinese by this simple and inexpensive process. The plentiful and cheap supply of pods coupled with low cost of Chinese labor (an operative in a factory of this kind earns about twenty cents per day) still enables Chinese soap makers of this type to compete with factories better equipped and working on modern principles of soap making.

There are many small soap factories run by Chinese all over China. They work on a comparatively small scale and with limited capital. Much of the work is done by hand, the machinery, where used, consisting of soap milling machine, plodder, cutting and printing machines. Tallow, cottonseed oil, vegetable tallow, and castor oil are used for making common soap, while coconut oil and perfume materials required for toilet soap are imported. China also offers a good field for the sale of other raw materials for soap making such as caustic soda and rosin. Considerable quantities of alcohol as well as spices of many kinds besides dyestuffs are imported into this market for use in the manufacture of toilet soap. There is an increasing popularity of the better class of soap or rather of scented soap (for Chinese soaps cannot be regarded in the light of luxuries, being cheap and poor in quality compared with Western standards). For instance, a box of Chinese washing soap containing 120 pieces will be marketed at $1.50 to $3.00. A fine grade of Chinese soap will sell at $1.00 a dozen pieces, whilst a coarse grade soap will sell at $0.50 a dozen. Medicinal soaps made in China sell at $5 to $6 a box of 144 cakes. Wages in these Chinese soap factories, manufacturing foreign-style soaps, range from $2.50 to $15.00 a month with free board and lodging, according to the work done. Many women are also employed and receive from 10 cents to 20 cents a day. If engaged in packing, they will be paid by piece-rate, about half a cent for packing one box. Eight to ten hours are worked a day, and whilst the larger factories close on Sunday, the others continue throughout the week, giving their hands a holiday on the occasion of Chinese festivals and the New Year, when work is suspended for five days or more.

THERE are several important foreign soap factories in China, the principal two being located at Shanghai. Soap is manufactured with the help of modern machinery and each factory turns out from 3,000 to 4,000 boxes of soap a day. Soap manufacture, whether done by the Chinese on a small scale and in primitive manner, or on a large scale and with modern machinery, is profitable, principally on account of the cheap and plentiful labor available and a cheap supply of tallow and other fats and oil from the interior of China. There is little doubt that, with the increasing demand for soap in China, more and larger factories will be erected, principally to

A Chinese comprador, the banker, warehouseman, and distributor of merchandise among the Chinese.

make the cheap brands with which the imported materials cannot so easily compete. Manufacturers of soap-making machinery as well as materials required in the manufacture of soap will find China a very good future outlet for their specialties.

In spite of the increasing manufacture of soap in China, the demand for imported brands continues to grow. This is due, to a great extent, to a greater appreciation of foreign-made soaps by all Chinese who can afford to pay somewhat more for better quality and better packing. The present population of China numbers approximately 500 millions, of whom I estimate some 50 millions can afford and do buy, at one time or other, imported soap. With the growing industrialization of the country and the gradual greater earning power of the Chinese masses, the use of foreign soaps is bound to increase. In addition, Western influence is also playing a considerable part in getting the people to choose Western goods, and this also tends to lead to a greater consumption of imported brands of soap.

Soap made locally is packed in wooden cases, or ones rebuilt from kerosene cases. It is sold through wholesale merchants or, in some cases, direct to the larger dealers. Given an attractive brand, the right price, and backed up with sufficient advertising in the press (Chinese and foreign) as well as by posters, it is not difficult to market any kind of soap in China, since this commodity has become a "bread-and-butter line" with most Chinese.

MANUFACTURERS and exporters in this country, who are interested in this market, should appoint a foreign firm in each of the more important trading centers of China to act as sales agents. On no account should one entrust one's representation to one firm only for the whole territory, as it is much too large to enable any one firm, however perfect its organization, to do full justice to principals here. The best plan is to have an agent in Shanghai, which is the most important center of trade in China (also for the soap manufacturing industry,—Tientsin coming next in importance), and has the largest Chinese (2½ millions) and foreign (40,000) population. A fairly large area can be covered from Shanghai. An agent in Tientsin is desirable to cover further north of China, one in Hankow for Central China, another in Dairen and Harbin for Manchuria, one

Soaps and other merchandise continue to be packed mostly by hand in Japan and China owing to the abundance of cheap labor.

in Hongkong and Canton for Southern China. Larger firms will find it in their interest to establish their own branch in Shanghai and from there to make their own sales arrangements and appoint sub-agents for the other trading centers. In the latter case, it will be necessary to employ a fairly large Chinese staff if it is decided to sell direct to Chinese dealers as well as through wholesalers. The other alternative is to engage the services of a comprador (sort of go-between), whose task it is to introduce business and at the same time guarantee up to a certain percentage (usually 25 per cent or more according to the agreed rate of commission to be given him) dealers' accounts. The comprador employs a few shroffs (collectors and salesmen who keep in constant touch with dealers, get orders, collect accounts, and attend to queries in general) and the usual clerical staff. In addition to his commission, the comprador usually receives a monthly allowance to cover salaries paid by him to his staff.

The comprador is not essential when selling soap on the Chinese market, and considerable saving can be effected without his help. Pro-

vided an active and continuous advertising campaign is conducted and dealers are not overloaded with merchandise, there is not much greater risk in payment or slow payment when dealing with the Chinese direct. During recent years, there has been, and still is, a growing tendency for Chinese merchants to buy direct from exporters and manufacturers abroad. There is no reason why such direct trading should not be encouraged, provided payment is made by the usual letter of credit opened in the shipper's favor, enabling him to obtain payment before goods leave port of shipment.

IN addition to the large demand for foreign soaps from the Chinese populace, there is a by no means inconsiderable market arising from the large number of foreign residents in various parts of China (about 350,000 in all). They usually buy the better class of soap and with them quality counts more than price. They buy their soap from the larger stores and give preference to imported brands.

Soap in China is sold by all department stores, their number is steadily increasing, druggists and chemists, as well as by some

The rising generation in China and Japan consume ever increasing quantities of soap as time goes on and education spreads.

tobacconists. Some credit is generally given, ranging from 30 to 90 days. On the whole, the average Chinese possesses a fairly high standard of commercial morality and by studying his ways and Chinese etiquette, it is not difficult to become friendly with him and thereby obtain his business.

The following statistics will enable those interested in the Chinese market for soaps to obtain an idea of the scope it offers and the volume of business already being done. Before concluding, I would emphasize to the reader not to attach too much importance to the "wars" and other disturbing factors (political wrangling, brigandage, etc.), about which so much has been heard from China. Such things

A Soap Sales Campaign gets under way in Shizuoka, Japan, to the tune of a native band and flaring banners, with the goods carried in a Ford truck.

do not interfere to any very serious extent with business in this market, and certainly do not preclude it being done.

IMPORTS INTO CHINA

	1926	1927	1928
Household and Laundry Soap (including Blue Mottled)...	$295,944	$217,630	$707,370
Toilet and Fancy Soap.....	1,395,253	1,242,690	1,640,810

Imports of Toilet soap into China for the first half of 1929 were valued at $578,160.

Japan

MOST Japanese take a hot bath every day, and this is true of all classes and all ages in Japan. It is quite usual to see a Japanese walking in the street to the local bath-house with a flannel and piece of soap in a small receptacle in one hand and a towel in the other. To the Japanese, soap has now become indispensable and they use a great deal of it, par-

(*Turn to Page* 85)

Two Japanese girls en route homeward from a public bath in Kobe.

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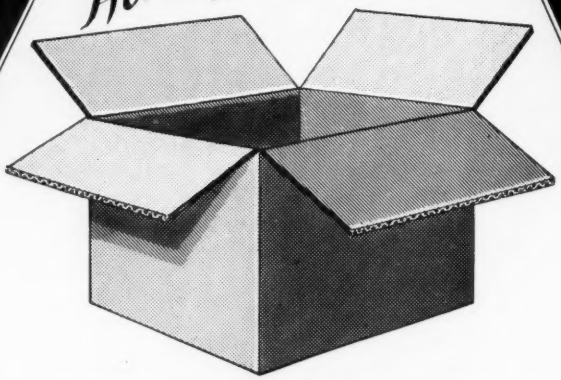

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SOAP PATENTS

Development of American Soap Manufacture Reviewed Through the Records of Patents

PART V

By JOSEPH ROSSMAN

THIS is the fifth of a series of articles on soap patents and their relation to the development of the soap industry in the United States. The survey of the soap patents in chronological order, giving a brief extract of each, which was started with the third article in the May issue of SOAP, *is continued. The first article of the series was published in the March, 1930, issue of* SOAP.—*The Editors.*

51. Lewis 532,467. Jan. 15, 1895. The method of making a compound for family use in soapmaking which consists in grinding caustic soda to the desired fineness, and grinding caustic potash to the desired fineness separate and apart from the caustic soda and with precaution to prevent deliquence, then thoroughly mixing the independently ground caustic soda and potash together in the desired proportion in such a way as to produce a homogeneous mixture or compound.

52. Rosenblum 539,547. May 21, 1895. The process consists in making a soap with less percentage of water than usual, and then adding an alkaline peroxide, dissolved in an amount of water sufficient to make up the requisite percentage of water in the soap.

53. Digby 551,723. Dec. 17, 1895. The process of manufacturing soap consists in taking oyster shells, and removing therefrom the discolored or slimy parts by alkali or acid, then reducing such shells to impalpable powder, then boiling the powder in an alkali and subsequently adding such treated shell product to ordinary soap-stock, and thoroughly mixing.

54. Raschig 567,412. Sept. 8, 1896. The process for rendering ordinary soap, for example, soda soap, very easily soluble in small quantities of cold water without subsequent gelatinization, by mixing soda soap, water and cresylic acid, which may be partly or fully saturated with caustic soda.

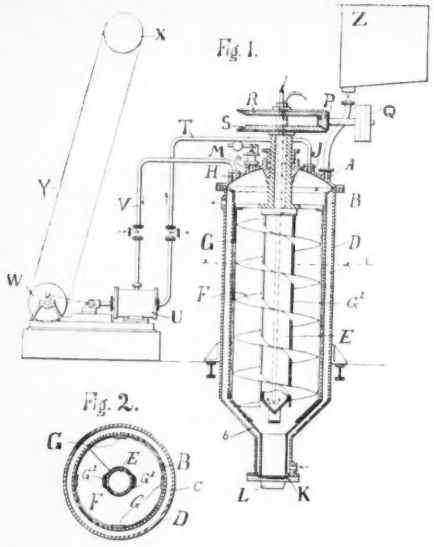
55. Weygang 575,189. Jan., 1897. For manufacture of the saponaceous liquid dissolve resin in warm petroleum and add alkali, such as strong soda-lye, in small quantities, with continuous energetic stirring, until about half the resin is saponified. Partial saponification is preferably effected in the first instance with about one-third of lye at a temperature of about 160° F., when impurities in the resin or in the soda-lye become precipitated. After settlement the supernatant clear liquid is drawn off and the saponification is proceeded with in the cold until it is found that there is some precipitate which does not become dissolved on agitation, showing that more than enough lye has been added.

56. Stockhausen 585,347. June 29, 1897. The process for making soap of an acid reaction and a gelatinous consistency consists in completely sulfonizing fats, oils, fatty acids or oleic acids, separating the obtained product from the remaining sulfuric acid, and perfectly saponifying the sulfonized mass by a quantity of alkali equivalent to the existing fatty acids, freeing the produced soap from fatty acids and alkali.

57. Wilson 623,859. Apr. 25, 1899. The method of treating soap, consisting in milling it with the meal of oil bearing seeds.

58. Schaaf 634,999. Oct. 17, 1899. A process for mixing resin soaps, oil soaps, or fat soaps with more or less volatile substances, which consists in introducing the volatile substances in a liquid condition in small quantities into the soap at a suitable stage of its manufacture or if desired in a finished condition, the soap being previously heated to such a degree as to be able to evaporate or volatilize the volatile substances at the moment of their introduction, with the object of obtaining as thorough an admixture as possible.

59. Stockhausen 646,326. March 27, 1900. The process for the production of a



Equipment and method for cooling soap. Invented by Frederic Jurgens and patented Aug. 18, 1908, as U. S. Patent No. 896,551.

soap of a gelatinous character consisting in treating sulfonized fats, oils, fatty acids or oleic acid with a larger quantity of alkali than the one used in the preparation of Turkey-red oil, that is with a quantity of alkali amounting to at least six per cent of the sulfonized substance, allowing the sulfate of soda to crystallize out and heating the remaining product to boiling temperature.

60. Cressonnieres & Cressonnieres 666,741. Jan. 29, 1901. In the process of manufacturing soap milling the material so as to form chips, drying the surface of the chips, reworking the chips so as to expose new surfaces, and submitting the chips to further drying.

61. Dyson 683,735. Oct. 1, 1901. The process of making soap, which consists in taking eight hundred parts of a petroleum emulsion consisting of petroleum, alkali and a fatty acid, adding thereto substantially two hundred parts of oleic acid and one hundred and fifty to two hundred parts of caustic potash solution of 30° Baumé and thoroughly mixing the materials until the caustic liquor has been absorbed.

62. Parziale 700,229. May 20, 1902. The process described consisting in mixing cold cottonseed oil and flour containing gluten together, allowing the mixture to stand and then mixing with the mixture caustic soda.

63. Reiss 760,018. May 17, 1904. The process of making medicated soaps, consisting in incorporating a fatty acid with a hydrocarbon to form a soap base, adding a fixed alkali-lye insufficient for saturation to the base, heating the mass until all the water is driven therefrom, and then incorporating a medicinal substance.

64. Horn 786,496. Apr. 4, 1905. The process for the preparation of neutral soap consisting in adding albumoses to the raw soap material and then making soap from the material.

65. Liebknecht 787,776. Apr. 18, 1905. The process of manufacturing antiseptic and cosmetic soaps which consists in melting by heat ordinary household soap and then stirring the mass while adding peroxide of zinc and finally molding the mass into pieces of proper shape and size.

66. Reale 790,154. May 16, 1905. A process for forming soap from a hydrocarbon and the products of the latter which consists in heating the hydrocarbon or products to 105° to 115° C. with fifteen per cent cetin or spermaceti, and a highly concentrated alkaline lye of 20° to 36° Baumé and then separating the soap formed.

67. Kuess 830,332. Sept. 4, 1906. In the manufacture of soap, the process which consists in saponifying fat and rosin in the presence of a hydrocarbon, adding an acid and resaponifying with alkali.

68. Reuter 830,365. Sept. 4, 1906. A method of making soap which consists in saponifying oils or fats with an alkali, dissolving the alkaline soap in water and alcohol, allowing the liquid to settle, filtering, adding gradually a predetermined quantity of a salt of perboric acid, stirring the liquid during the process of dissolution, keeping the temperature at a low point, and adding finely powdered boric acid in small portions.

69. Reuter 842,010. Jan. 22, 1907. The method consists in adding to alkali soap a quantity of a salt of zinc sufficient to neutralize the free alkaline in the soap, heating the liquid, and converting the liquid into dry soap.

70. Bird 853,759. May 14, 1907. The process consists in extracting cottonseed oil from cottonseed meal by the use of kerosene and subjecting the solution of hydrocarbon and cottonseed oil to the action of a soapmaking alkali and heat to separate the cottonseed oil from the hydrocarbon in the form of soap.

71. Krebitz 858,295. June 25, 1907. The process of making soap which consists in

forming an insoluble soap of a suitable base, decomposing the soap by boiling with a lye containing sodium carbonate in amount between 2 and 6 per cent in excess of that equivalent to the insoluble soap, adding salt in salting out amount after completion of the decomposition, and separating the curd soap and insoluble carbonate formed.

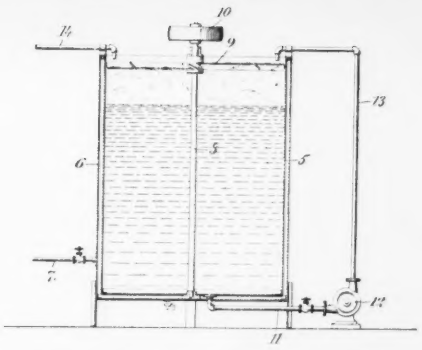
72. **Lothammer & Trocquenet 864,753.** Aug. 27, 1907. The process of saponifying petroleum which consists in emulsifying the petrolum, igniting the emulsionized petroleum, collecting the residue resulting from burning the emulsionized petroleum, and finally boiling the residue with coconut oil, soda lyes, and aqueous solution of silicate of soda and a solution of carbonate of soda in quillaia water.

73. **Fischer 867,963.** Oct. 15, 1907. The invention consists essentially in mixing the required quantities of rosin and soda (sodium carbonate) with the minimum amount of water; boiling this mixture within a suitable vessel and keeping substantially constant the amount of water by condensing the vapors of the same with the vessel and directly returning it, permitting the carbonic acid evolved to simultaneously escape; and finally after the complete escape of the carbonic acid removing the water.

74. **Samuel 873,615.** Dec. 10, 1907. According to this invention a mineral oil such as petroleum is incorporated with soap by a process of saponification, one of the advantages of which is that the process can be carried out in an open pot and that the mineral oil will not separate after prolonged boiling even when the soap contains very large percentages of it.

75. **Stohr 883,360.** Mar. 31, 1908. The process of manufacturing moldable floating soap consists in first melting resin over a slow fire, then removing and stirring it, then adding to it a fine jet of caustic soda solution of 42° Baumé previously heated to 144° F. and stirring till the saponified resin becomes crumbly and sandy, and then adding it to saponified coconut oil and stirring over a slow fire to boil for an hour, then removing into shallow vessels in a cool chamber, and finally removing the resinous top portion and mixing it with hot soap-paste.

76. **Jurgens 896,551.** Aug. 18, 1908. The method of making lime soap consisting in mixing a quantity of fatty matter with from 12 to 20 per cent by weight of slaked or hydrate lime and heating the mixture to approximately 400° F. until the reaction



Equipment and method for the manufacture of rosin soap. Invented by Anderson W. Carmichael, Jan. 5, 1909, as U. S. Patent No. 908,951.

has subsided and substances volatile at this temperature have been expelled.

77. **Carmichael 908,951.** Jan. 5, 1909. The method of producing hard rosin soap, which consists in heating a saponified solution of rosin, beating down the foam rising at the surface of the solution to liberate the vapor and prevent the overflow of the foam, and withdrawing the solution from the under surface and discharging it over the surface thereof.

78. **Samuel & Lockwood 918,705.** Apr. 20, 1909. In a process for the manufacture of a soap containing permanently emulsified hydrocarbon oil, injecting the hydrocarbon oil in a finely divided conditon into a soap mixed with an alkali, the hydrocarbon oil being maintained during the process under such pressure and at such temperature that volatilization thereof is prevented.

79. **Sulzberger 951,155.** Mar. 8, 1910. Process for manufacturing scouring and other household soaps consisting in adding fullers' earth which has been used in treating substances of a fatty and oily nature, as a scourer and filler to the soap material.

80. **Broek 959,820.** May 31, 1910. The process of making hydrocarbon soaps, comprising the step of emulsifying a volatile hydrocarbon consisting largely of naphtha by stirring the hydrocarbon into a solution of soap containing approximately ten parts by weight of soap to one part of ammonia water at a temperature approximating 120° F.

81. **Sulzberger 968,092.** Aug. 23, 1910. Process for rendering commercially available fullers' earth, which has been used in deodorizing and decoloring substances of

(*Turn to Page* 89)

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New Emulsifying Agents

Practical Applications for Trihydroxyethyleneamine Distearate and Ammonium Linoleate

By H. Bennett
Glyco Products Company

MANY of the trials and tribulations encountered in the manufacture of technical emulsions have been caused by the use of ancient formulæ all of which specify the preparation of the emulsifying agent *in situ*. Because of variations in the reactant ingredients and chemical interaction with other materials present, and through variations in time, temperature and contact, it is often impossible to get the same results in duplicate batches. In order to overcome the variations, the newer trend is to use previously prepared practically anhydrous emulsifying agents of definite concentration. In this manner it is easier to make better emulsions, which can be duplicated accurately.

Two emulsifying agents, which are finding wider use, are trihydroxyethyleneamine distearate and ammonium linoleate (paste). Trihydroxyethyleneamine distearate is a wax-like product of amber color, possessing a faint fatty odor. It is soluble in water and hydrocarbons and can be melted without decomposition.

The method used in making an emulsion is as follows: Dissolve 14 parts trihydroxyethyleneamine distearate in 72 parts of mineral oil heating to 60 to 70° C. Add water slowly with vigorous stirring and continue stirring until homogeneous. This will give a rich creamy emulsion of great stability. The above formula with the addition of a perfume makes an excellent liquid cold cream. In place of mineral oil, other vegetable or animal oils may be used. Hydrocarbons such as benzol, gasoline, naphtha, kerosene, etc., are emulsified in the same manner. Waxes and hard fats are likewise emulsified except that the water added must be heated above the melting point of the wax or fat. Water insoluble solids may be emulsified in the same way by first dissolving them in a water insoluble solvent. For example, paradichlorbenzol is dissolved in solvent naphtha and then emulsified as above. Of course, the amount of emulsifying agent may be reduced considerably depending on the nature of the emulsion.

By dissolving trihydroxyethyleneamine distearate in boiling water, viscous opalescent solutions are obtained, which are being used in preparing hand lotions which assume a pearly appearance on cooling. If a milky lotion is desired a little mineral or other oil is melted in with the trihydroxyethyleneamine distearate and the hot water is run in slowly with vigorous beating.

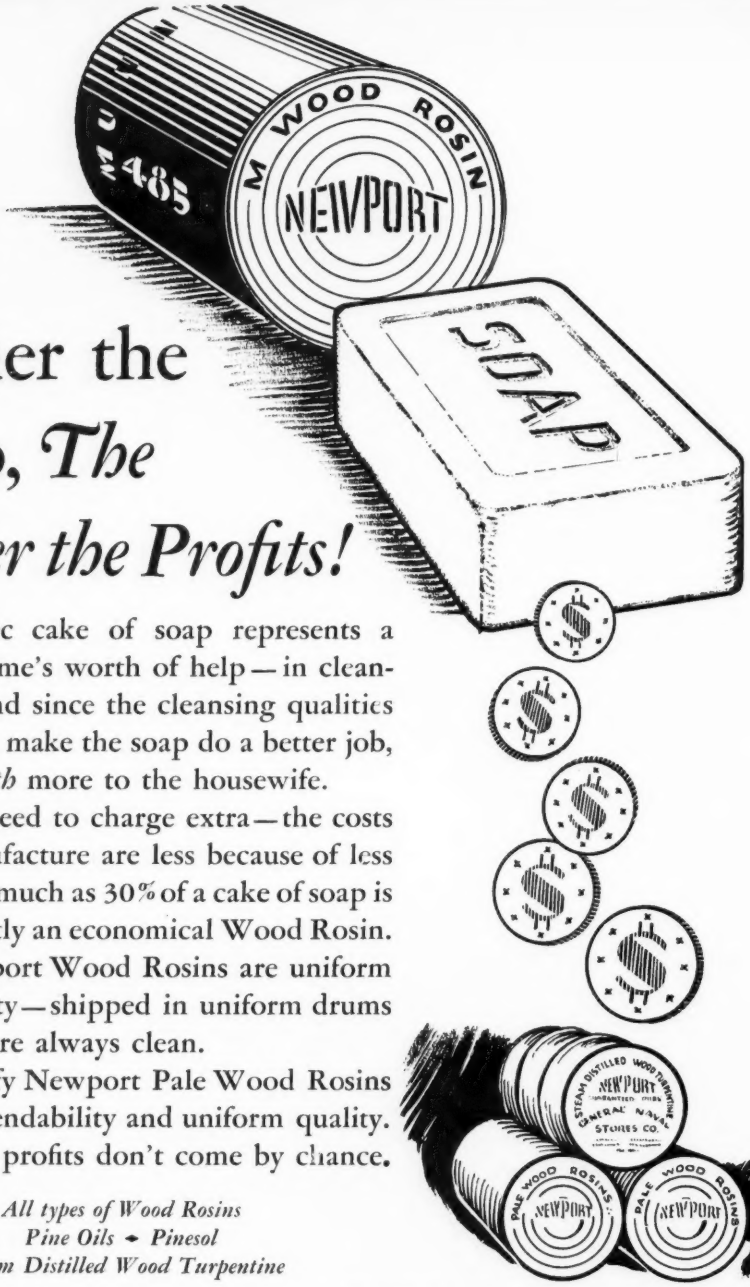
Ammonium linoleate, in form of a paste, is finding new and novel applications. The procedure is quite simple. The required amount of ammonium linoleate paste is first completely dissolved in water and the oil to be emulsified is added slowly with vigorous stirring until emulsification is complete. There is given below a table showing the amounts of oil, water and ammonium linoleate required:

(All Parts by Weight)

No.	Material Emulsified	Parts	Parts of Water	Parts Emulsified B585
1.	Mineral Oil.....	90	90	10
2.	Kerosene	90	90	8
3.	Naphtha	90	100	7
4.	Benzol	90	100	7
5.	Gasoline	90	100	7
6.	Cottonseed Oil...	90	90	11
7.	Linseed Oil.....	90	150	8
8.	Olive Oil.....	80	60	10
10.	Castor Oil.....	90	80	12
11.	Pine Oil.....	90	90	10
12.	Chinawood Oil...	90	80	12
13.	Peanut Oil.....	90	80	12
14.	Cocoanut Oil....	90	80	12
15.	Paraffin Wax....	90	320	24
16.	Carnauba Wax...	90	420	12
17.	Asphalthum	40	200	8
18.	Beeswax	90	500	12
19.	Synthetic Wax...	90	500	12
20.	Ozokerite	90	400	14
21.	Turpentine	90	100	8
22.	Nitrobenzol	90	100	8
23.	Orthodichlorbenzol	90	100	8
24.	Methyl Salicylate.	90	100	8

The above formulæ can be lessened in cost by reducing the amount of emulsifier used. The minimum can be determined by experiment.

The Leaner the Soap, *The Fatter the Profits!*



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Emulsions made according to the above formulæ are useful as sprays, disinfectants, insecticides, lubricants, cleaners, etc. When volatile hydrocarbons are thus emulsified their flash-points are raised sufficiently to make them non-inflammable and thus reduce fire-hazards. Moreover their vapor tensions are so reduced that they do not evaporate so readily and the loss by volatilization is reduced. The formula given for making mineral oil emulsions is typical of the usual oil polish for furniture or automobiles. If desired, a varying amount of tripoli or air floated silica may be added to produce a silver or other metal polish. In the case of metal polishes, the use of ammonia and oleic acid is not necessary in using this formula.

STABLE wax emulsions have been the despair of many chemists. Many have tried and but few have succeeded. The quest for good wax emulsions is continued because wax is used in so many industries and would be used in many more if not for the difficulties involved in applying this class of materials. Since waxes are usually solids they must be melted or dissolved. In the former case, this is not usually economical because the wax hardens quickly and unevenly. In the latter, sometimes inflammable solvents must be heated with the wax with resultant fire hazards.

In emulsifying waxes with ammonium linoleate, the paste is dissolved in water and heated above the melting point of the wax which is to be emulsified. The wax is melted in a separate container and poured into the heated water solution slowly with vigorous stirring. If this method is followed exactly, using the proportions given previously, excellent stable wax emulsions can be formed. Such emulsions make excellent polishes, waterproofing, lubricating and filling compounds. Formula No. 1 is an excellent oil polish. Formula No. 16 gives an automobile or furniture polish of outstanding lustre and extreme durability. It will not show finger-marks. It does not require the hard rubbing necessary with most commercial wax polishes.

MANY chemical reactions require contact between an aqueous solution and a liquid or solid phase insoluble in water. It is well to know that the speed and completeness of the reaction is dependent on intimate contact. For example, if we try to hydrolyze ethylene dichloride with an aqueous solution of sodium hydroxide we see that the two phases are immiscible, and even vigorous agitation does not bring sufficient intimate contact. By emulsifying the ethylene dichloride with ammonium linoleate and water, a very fine dispersion is created which promotes hydrolysis under proper conditions of heat and pressure. If one of the reactant materials is a solid having a melting point above 100° C., it should first be dissolved in an inert organic solvent and then emulsified according to the method previously given.

These emulsions for synthetic processes must be agitated violently during the course of reaction. Although acids, salts and alcohol are usually detrimental to the stability of emulsions, they nevertheless can be used provided that violent agitation is kept up continuously.

In many cases where chemical bleaching changes the structure of oils, fats, waxes, rosins, etc., or leaves behind a residue which is undesirable, recourse is had to lightening of color by emulsification with ammonium linoleate. The emulsion is made as previously outlined and then a large excess of water is added while vigorous agitation is continued. A small amount of any acid or electrolyte is then added and stirring is continued until the emulsion "breaks." On standing, the oil, fat, wax, rosin, etc., rise to the top and can be drained off. It is then "whizzed" and dried if occluded moisture is objectionable. In crude materials containing insoluble matter, the latter usually settles out of the water in the settling tank.

Rosin soaps are used extensively as emulsifying agents in the manufacture of disinfectants, water-paints, paper coating, etc. They are usually made when needed and the method is slow, cumbersome and duplicate batches show great variations. By the use of ammonium linoleate, this is avoided and heating with the resultant fire-hazard, foaming, etc., are eliminated.

Ammonium linoleate also furnishes a convenient method for the preparation of metallic soaps which are extensively used in waterproofing textiles, stucco, etc., and driers in paints and varnishes. The technique is quite simple. The ammonium linoleate is dissolved in water by vigorous agitation and is heated just below the boiling point. In another kettle, a concentrated solution of lead acetate is brought to a boil. The latter solution is added slowly to the former with vigorous stirring. The insoluble lead linoleate floats to the top and is washed and dried in the usual way. Solutions of aluminum, magnesium, calcium, barium, titanium, copper, zinc, nickel, cobalt and manganese salts precipitate the corresponding metallic soaps. Since the ammonium linoleate is an especially light colored product, the precipitated soaps are usually lighter in color than the usual commercial products.

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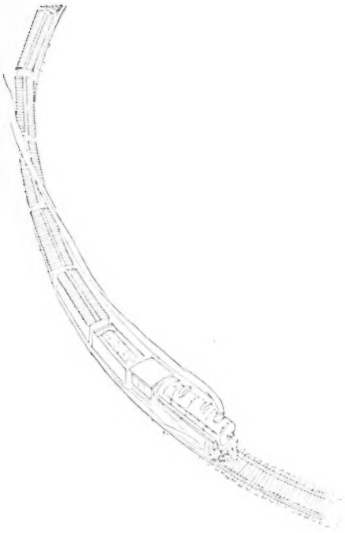

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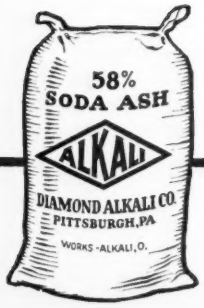

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Oil Traders' Outing at Briarcliff

Approximately two hundred members and guests of the Oil Trades Association of New York were present at the annual outing which was held at Briarcliff Lodge, Briarcliff, N. Y., June 12. The group gathered at Battery Place early Thursday morning where busses were waiting to make the trip up the Hudson. Those who drove up in their own cars were able to get rounds of golf under their belts before lunch when the whole party was gathered together in the Casino. A baseball game between the vegetable and mineral oil groups was an additional attraction in the afternoon, and resulted in a 13 to 10 victory for the latter team. A. V. Merklen of Pigot, Sayre Co., pitched for the winners, with Phil C. Meon backing him up. The other members of the winning team were Messrs. Christie, Smith, Davison, Robinson, Strubel, Hand, Lindsay and Valter. Each was presented with a mahogany desk clock. Jim Sheehan, of Fiske Bros. Refining Co., and F. G. Fanning, of Lubraa Oil Corp., were the battery for the losers. (The very mention of the latter's name to the mineral oil batters as they stepped up to the plate should have chilled them.)

Dinner was also served at the Casino and was followed by a short talk by C. T. Weihman of Smith-Weihman Co., president of the Association, in which he pointed out that modern ideas of sport are somewhat different than they were in the days when Knights invited out their best friends to an afternoon of armhacking and back-breaking. Now the sportsman vents his spleen on the inoffensive golf ball. Winners of golf prizes were announced by Austin Wharry of G. A. Wharry & Co., as follows: Members, C. H. Scott, 1st; Al Hornberger, 2nd; G. A. Wharry, 3rd; J. F. Renick, 4th; Frank Anderson, 5th; E. W. Allington, 6th; John A. Beck, 7th; Ed Stern, 8th; J. D. Bennett, 9th; C. A. Oettler, 10th. Guests, F. H. Schriver, 1st; G. E. Getchell, 2nd; H. Happisburg, 3rd. Albert J. Squier again served as chairman of the entertainment committe, assisted by Edwin Stern and G. A. Wharry who took charge of the golf tournament and prizes.

The Hotel New Yorker, New York, will be the scene of the Second National Exhibition of Perfumery and Toiletries during the week of Sept. 8 to 13. A Grand Ball and Banquet will be held during the week as one of the entertainment features for the visiting manufacturers and buyers. Ample space will be available for exhibitors, as the entire fifth floor of the hotel has been reserved.

Henkel Builds in Denmark

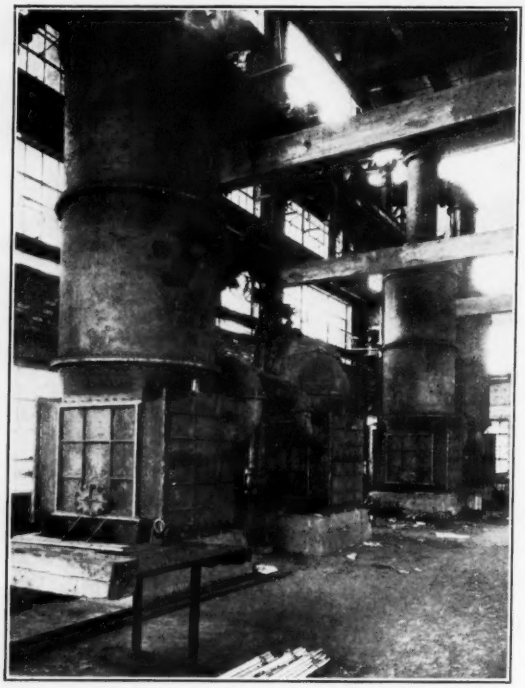
Henkel & Company, a subsidiary company of the large Henkel firm of Dusseldorf, Germany, which for many years has been importing washing preparations into Denmark, chiefly "Persil" and various chemical products, now has erected a factory in Copenhagen which in the future will supply the Danish market. The new plant was constructed at a cost of about 1½ million crowns. In order to finance the project, Henkel & Company doubled its share capital, increasing it from ½ million crowns to 1 million crowns. Crown equals $0.0296 United States currency. Report from Assistant Trade Commissioner Pearson at Copenhagen. (Persil is the well known German sodium perborate washing compound.—Ed.)

The Public Service Commission has approved new freight rates of the New York Central (East) on glycerine (other than crude) in bulk, in barrels, carload, minimum weight 40,000 pounds, from New York and Brooklyn stations, Long Island City (Pidgeon street terminal), New York (including lighterage), Kings Bridge, Morris Heights, High Bridge, Melrose Junction, Westchester Avenue and Port Morris to stations East Buffalo to Harriet inclusive, 32c, a reduction of 5.5c per cwt. Effective July 20.

Colgate-Palmolive-Peet Co. has recently been charged by the Federal Trade Commission with deception in the sale of its "Sea Foam Naphtha Soap Powder," "Peet's White Naphtha Soap" and "Peet's A-B Naphtha Soap." According to the Commission these soaps are sold to the public under the representation that they contain sufficient naphtha to substantially increase their cleansing power, when in fact the products are not chemical unions of naphtha and ammonia and do not contain sufficient naphtha to be of use in cleaning.

Oil Trades Association of New York recently issued its year book for 1930-1931, listing the member companies of the association, their representatives, the officers and directors of the association and the standing committees. A copy of the constitution of the association is also included in the book.

According to Commercial Attache W. A. Hodgman, Budapest, there is a fair demand for American cosmetics, and during 1929, 35 per cent of all perfumed creams, toothpaste and mouthwash originated in the United States.



CECO

CECO Criss-Cross Evaporator Performance and Economies Dictated the Order for Four Additional Units

The illustration to the left shows an installation of four CECO Criss-Cross tube Evaporators in one of the largest soap plants in the West for the evaporation of spent soap lye and sweet water.

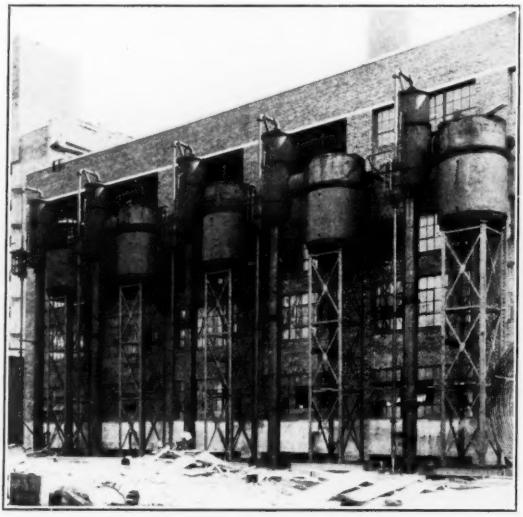
Six years ago we installed a complete CECO Criss-Cross Evaporator unit of 260 sq. ft. heating surface. The rate of evaporation being approximately 50 lb. per sq. ft. of heating surface. The unit that was displaced had approximately 400 sq. ft. of heating surface and required 24 hours to do the necessary work. The CECO unit, of about one-half the heating surface, required only six hours to do the same work.

After six years of successful operation we were given a contract to install four additional units to take care of increased production.

The company engineers who had been operating the original CECO unit claimed that tests showed greater evaporation per square foot than the guarantee. Therefore they could install CECO Criss-Cross Evaporators of a much smaller size, and practically pay for them with the saving in floor space alone. Further the original unit had required practically no maintenance expense, as the tubes had never been touched or cleaned and are in very fine condition.

The new units are the very latest development, having large vapor section for the expansion of the vapors, therefore dropping out entrainment, although catchalls are installed as a precaution. Barometric condensers, see illustration at bottom, are used with steam jet vacuum pumps to assure the very highest vacuum that can be obtained for this type of equipment.

When considering new evaporation, whether for replacement, expansion or an entirely new operation, engineers should consider CECO Criss-Cross Evaporators very carefully, as we can show considerable improvement over the older types.



Chemical Equipment Company

MONTPELIER, INDIANA

Say you saw it in SOAP!

German Soap Expert to Visit U. S.

Dr. Julius Schaal of Hamburg, Germany, widely known European soap expert, will arrive in the United States about the middle of August to consult with certain American soap manufacturers regarding several new processes which he has developed. Dr. Schaal is the originator of a new method for rapid saponification and also of a process for the production of white soaps with the prevention of later spot formation. Both methods have recently been adopted by a number of plants in Germany, France, Czechoslovakia, and other countries of Europe, according to advices. Dr. Schaal, whose work in soap technology extends back some forty years, is head of the consulting laboratory in Hamburg bearing his name and also directs an institute for technical instruction in soap manufacture in that city. He is the author of "Die Moderne Toiletteseifenfabrikation." He will be in the United States for about a month, and will be available for consultation regarding the new processes. He may be communicated with through the editor of *Soap*.

DR. JULIUS SCHAAL

G. Lee Camp, for many years sales manager of Dow Chemical Co., Midland, Mich., recently accepted a position as assistant to Edgar M. Queeny, president of Monsanto Chemical Works, St. Louis. He gave up his position with the Dow organization last Fall because of ill health, and since then has been connected with the company as a special representative.

R. L. Cawood, head of Patterson Foundry & Machine Co., East Liverpool, Ohio, has announced a new Mechanical Training Course open to young men of East Liverpool. Young men over eighteen years may enter the two and a half year training course after completing a probationary three month period successfully. After graduating they will be employed by the company as engineers, draughtsmen, machinists, moulders, etc. The cost to the company is estimated as $2,500 for each pupil.

Velvet Hand Soap Co. has recently been incorporated by B. A. Borrok, 140 Nassau St., New York, with 20,000 shares of common stock. The new company will operate a factory on Long Island.

P. & G. May Buy French Firm

Procter & Gamble Co., of Cincinnati, is reported to be negotiating for control of the Cadum Soap Co., a French firm controlled by American capital. R. R. Deupree, vice-president of Procter & Gamble, is now in Europe inspecting soap factories in Germany, Great Britain and France, accompanied by Harvey C. Knowles, general production manager of P. & G. The Cadum Soap Co. does a business in excess of $25,000,000 a year. Its line includes toiletries as well as soaps.

In connection with the sale of James S. Kirk & Co. to Procter & Gamble Co. it has been announced that P & G will continue to make and sell the Kirk products, "American Family," "Jap Rose" and "Kirk's Flakes," and in addition will manufacture its own brands at the Kirk Chicago factory. The output of this plant will be increased considerably.

Paterson Equipment Co., 30 Church St., New York, has recently been organized to do a general business in used chemical industries equipment. N. H. Keith, formerly head of Campbell-Keith Co., also a used machinery house, is manager of the new company. Mr. Keith has had a number of years' experience in this line of business.

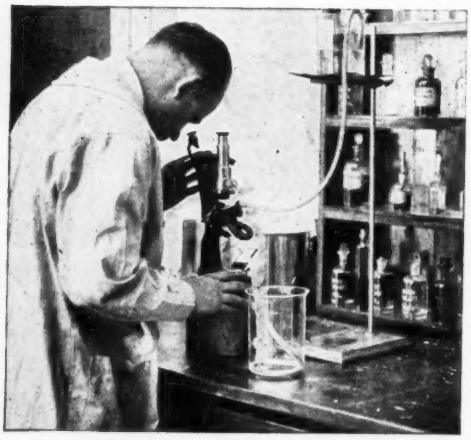
Spencer Kellogg & Sons Sales Corp. held a three-day session for its district managers at Hotel Statler, Buffalo, over the week-end of June 28. Howard Kellogg, president of the corporation, described the business outlook for the second half of the year as good.

Philadelphia Quartz Co., Philadelphia, is now in position to offer sodium metasilicate as a dry soluble powder. It finds many uses in the cleaning of glassware, tinware, wool and cotton, and is said to be superior to caustic soda for many purposes. Solutions of sodium metasilicate are strongly alkaline, and remain so until almost completely neutralized.

In the June issue of *Soap* it was stated in error that Philadelphia Quartz Co., of Philadelphia, had purchased a tract of land at South Gate, Cal. The purchase was in fact made by Philadelphia Quartz Co. of California, Sixth & Grayson Sts., Berkeley, Cal.

The University of Liverpool recently conferred the degree of Master of Science on P. W. Tainsh, for the past sixteen years chief chemist of Lever Bros.

SILVER SEAL COCHIN



Maintains the STANDARD of QUALITY

THE value of the application of modern methods, controlled by the most scientific practices, is presented to the users of coconut oil in the form of *Silver Seal Cochin.*

Bleached and deodorized, the color of this Spencer Kellogg product is guaranteed not to run higher than .5 red and 5.0 yellow; and contains not more than .07 free fatty acids.

Manufacturers of high-grade soaps of national repute have adopted *Silver Seal Cochin* as the standard by which coconut oils may be judged.

KELLOGG'S THE TEST TELLS 1894

SPENCER KELLOGG
COCONUT OILS
Manila Crude
Crystalite
Silver Seal Cochin
Edible
Hydrogenated

SPENCER KELLOGG AND SONS SALES CORP'N

General Offices: Buffalo, N. Y.; *New York Offices*: Graybar Building; *Crushing Plant*: Manila, P. I.; *Refinery*: Edgewater, N. J.

Sales Offices in all Principal Cities

Warehouse Stocks Carried At: Albany, Baltimore, Boston, Chicago, Cincinnati, Cleveland, Detroit, Kansas City, Milwaukee, New York City, Philadelphia.

(Tank Wagon Service in Greater New York)

Comparative Security Prices

PRICES of stocks of soap, chemical, insecticide, and allied companies as quoted on the New York Stock Exchange, Curb Exchange, other exchanges and over-the-counter, are given in the following table. This table of prices is compiled monthly for *Soap* by a representative of one of the oldest and best-known brokerage houses in New York.

Stock	High 1930	Low 1930	June 2 1930	July 1 1930
Allied Chem.	343	243	314	247
Amer. Agric.	103⅜	43¼	7	5
Amer. Cyan. "B"	37	17⅜	26¼	19⅜
Armour of Ill. "A"	8⅛	4⅜	6⅜	5¼
Bon Ami "A"	78	70	74	70
Brillo	16½	8	9	8
Colgate P. P.	64⅛	51½	62½	51½
Corn Prod.	111⅜	87½	107¾	90½
Dow Chem.	100	69½	98	71
Drug Inc.	87⅜	67	84	71¾
Du Pont	145¼	95¾	130¼	97½
Glidden	38	15⅛	25	15½
Gold Dust	47⅞	34½	45⅝	37½
Gulf Oil	166⅞	117⅛	150	119½
Heyden	23	14	19¾	15
Intl. Agric.	8½	4½	6⅛	6
Lehn & Fink	36	22¼	27¼	25¼
Mathieson	51⅜	32⅜	46	36½
McKesson & Rob.	37⅜	18⅝	27⅛	22
Monsanto	63¾	35	56¾	38
Newport "A"	85	45	70	48
Procter & Gamble	78⅞	52⅝	70	67½
Shell Union	25½	18	20⅝	18¾
Sherwin Williams	85	79	82½	79½
Sinclair	32	20	27⅝	21⅝
Standard Oil of Cal.	75	55½	70¾	60
Standard Oil of Ind.	59⅞	47⅝	54	49¾
Standard Oil of N. J.	84⅞	58	79⅝	64½
Standard Oil of Ohio	108½	81	90	82
Swift & Co.	34½	28	31⅞	28¾
Union Carb.	106⅜	60⅛	85½	66
Westvaco Chlorine	59½	30	45	32
Wilson & Co.	7¾	3	5	3½

Colonel Herman A. Metz has become chairman of the board of directors of General Dyestuffs Corp., New York, and Ernest K. Halbach has succeeded to the presidency of the company. Mr. Halbach was first associated with Wm. Pickhardt & Kuttroff thirty-one years ago, and later became manager of Kuttroff, Pickhardt & Co. Upon the organization of General Dyestuff Corp. he became secretary of the company, and in 1926 was appointed general manager.

Prolonged economic depression in Ecuador has affected the sale of toilet preparations there adversely. Merchants hesitate to stock new lines which are not liable to move fast because of decreased purchasing power.

The consolidated balance sheet of Beach Soap Company, Lawrence, Mass., at the end of 1929, gave the following figures:

ASSETS

Real estate	$121,468
Machinery	63,860
Merchandise	143,382
Furniture, fixture and tools	5,362
Autos, trucks and teams	9,516
Accounts receivable	58,369
Cash	5,015
Securities	111,332
Deferred charges	9,351
Trade-marks	495
Total	$528,153

LIABILITIES

Capital stock (including only shares with par value)	$317,500
Accounts payable	30,144
Notes payable	115,000
Surplus	65,508
Total	$528,153

Glidden Company, Chicago, reports May sales of $3,419,823, compared with sales of $3,670,397 in May, 1929, which was the largest total ever attained for this month by the company. The May, 1929, figure was an increase of $827,860 over May of 1928.

Statement of Monsanto Chemical Works, St. Louis, as of March 31, 1930, shows total assets of $24,384,953, compared with $24,333,-164 on December 31, 1929, and earned surplus $2,510,318, against $2,487,822. Current assets were $6,729,837 and current liabilities $1,159,-322, comparing with $6,832,092 and $1,379,-342, respectively, on December 31, 1929.

The Dow Chemical Co., Midland, Mich., reports for the year ended May 31, 1930, net profit of $2,782,017 after charges and taxes, equivalent after 7 per cent preferred dividend requirements to $4.08 a share on 630,000 no-par shares of common stock. This compares with net profit of $2,437,000 in the previous fiscal year, which, computed on above share basis, is equal to $3.53 a share.

Although still lagging behind last year, export business in naval stores showed some recovery during April, falling only a narrow margin behind the total of that month in 1929, the respective values being $1,654,891 and $1,580,348, according to United States Department of Commerce. Gumrosins showed an increase over April, 1929, the exports amounting to 68,507 barrels valued at $911,-250, as against 62,873 worth $900,573. For the first time this year the exports of wood rosin showed a decline under the corresponding month in 1929. These fell from 16,400 to 14,656 barrels, with respective values of $229,-332 and $186,324.

Light 58% Soda Ash shipped in 100 lb. Paper Bags

WYANDOTTE Soda Ash is now packed in multi-wall paper bags. Multiple layers of special paper end the old dust nuisance—no meshes to let the dust seep through. The smooth paper lining lets the entire contents slide right out.

The new size makes handling easier, quicker, less expensive. You save time, labor. Guaranteed dust-proof, leak-proof, break-proof, moisture-proof.

Michigan Alkali Company is the first Soda Ash manufacturer to successfully use this method of packing Soda Ash.

"Distinguished for its high test and uniform quality"

MICHIGAN ALKALI COMPANY

General Sales Department

10 East 40th Street, New York City

NOTE NEW ADDRESS: Our new location in New York is at 10 East 40th Street—just across the street from where we were and a few steps nearer Fifth Avenue.

Chicago Office: 1316 South Canal Street **Works: Wyandotte, Michigan**

Say you saw it in SOAP!

CHICAGO NEWS

CHICAGO Perfumery, Soap and Extract Association cancelled its Annual Stag Picnic this year, as the golf tournaments are giving the members adequate outings. The third tournament of the season was held at Olympia Fields Country Club on Tuesday, May 10th, with an attendance of 26. A new handicapping system was inaugurated whereby the inexpert golfers who are struggling to improve their games may have a better chance of receiving encouragement by sharing in the prizes. The golfers, by this scheme, are divided into two classifications, A and B. Class A consists of those whose handicaps range from 1 to 15, and Class B those from 15 up. The prizes for winners in both classes are of equal value. The system met with popular approval and instilled new spirit into the competition. It is only one method by which Chairman A. C. Drury is proving himself a splendid leader for the Auxiliary.

The winners in Class A were: First, William Lowenstein, of Bauer & Black, with 87—10, net 77; second, Walter H. Jelly, of Walter H. Jelly & Co., with 92—15, net 77; and third, A. C. Drury, of A. C. Drury & Co., with 92—14, net 78. Several new names went into the winners' column in Class B; First, William H. Muttera, of Armstrong Cork Co., with 92—20, net 72; second, Harry Dunning, of American Commercial Alcohol Corp., with 97—20, net 77; and third, John Buslee, of Naumann-Buslee & Wolfe, Inc., with 102—22, net 80. The second tournament was held at Crystal Lake, on July 8th, and the next will be held at Medinah Country Club on August 19th. All Association members will be welcomed, whether they are auxiliary members or not.

A. C. Drury & Co., have lately been appointed Western Distributors for the Cherry Oil Co. This new oil is a fatty oil made from cherry pits and is used in the cosmetic trade.

H. J. Boulden, of Andrew, Jergens & Co., Cincinnati, drove to St. Louis early in June with his wife to renew acquaintances there.

F. C. Renner, of the Chicago office of Monsanto Chemical Works, will be transferred, on August first, to the Boston office. He has made many friends in Chicago who will be sorry to see him depart. On June 26th, Mr. Renner became the proud father of a daughter, Margaret Elizabeth, his second child, the first being a son.

Wizard, Inc., of Chicago, recently placed on the market a new moth block, shaped in the form of a moth, with a hole in the center. Each block is packed in colored transparent wrapper.

M. R. Cady & Co., of Grand Rapids, Michigan, recently began to manufacture a new moth ring called *Kill-O-Moth*.

During the last week in June, Dr. E. J. Thomssen, chief chemist for the J. R. Watkins Co., of Winona, Minn., and Ralph Boalt of the same company, were visitors in New York, stopping Chicago en route.

Zoro Company, of Chicago, is now putting on the market a new package of moth crystals in a shaker top can. This new item takes its place beside the carded naphthalene slabs which this company has already successfully marketed. Both items are sold by house to house canvass, although a different merchandising method is used for each. The Zoro Company has offices in Minneapolis and St. Louis as well as Chicago, and plans to open other branches.

Martin B. Vance of Givaudan-Delawanna, Inc., Chicago, recently returned from a three weeks' tour through ten Southern States.

Exports of toilet and fancy soaps from United States during April, 1930, totaled 618,494 lbs., worth $125,613, as against 492,639 lbs., worth $135,237, during the same month of the previous year. Laundry soaps to the amount of 3,267,350 lbs., worth $214,876, were exported in April, 1930, as compared with 3,069,853 lbs., worth $207,312, in the same month of 1929. Exports of powdered and flaked soaps in April, 1930, were 210,054 lbs., valued at $19,700, as compared with 192,566 lbs., worth $17,620 in April, 1929. Scouring soap and scouring powder totaling 1,451,728 lbs., worth $92,330, was exported in April, 1930, as against 766,996 lbs., valued at $57,351, in April, 1929. Exports of shaving soaps totaled 57,522 lbs., worth $25,298, in April, 1930, as compared with 61,002 lbs., valued at $32,060, in April, 1929.

Exports of soap from Great Britain during April, 1930, totaled 110,717 cwts., valued at £247,917, with 95,093 cwts. of this, worth £173,642, being in the form of hard bars. Imports during April, 1930, totaled 21,893 cwts., worth £49,384.

HEIKO

SAPOFIXIN

We invite you to try our Sapofixins
in your Soaps as reinforcers.

Sapofixin Eau de Cologne
Sapofixin Hyacinth
Sapofixin Lavender
Sapofixin Lilac
Sapofixin Lily of the Valley
Sapofixin Orange
Sapofixin Pine
Sapofixin Rose
Sapofixin Violet

HEINE & CO.
NEW YORK
TELEPHONE BEEKMAN 1535
52-54 CLIFF STREET

Sole Distributors for HEINE & CO., A. G., Leipzig
in the United States and Canada

Say you saw it in SOAP!

PERSONAL and IMPERSONAL

Dr. Martin H. Ittner, chief chemist of Colgate-Palmolive-Peet Co., at its Jersey City plant, received the honorary degree of Doctor of Science from Colgate University at its recent commencement. He is graduate of Washington University from which he received the degrees of Bachelor of Science and Bachelor of Philosophy. He also holds the degrees of Master of Arts and Doctor of Philosophy from Harvard. He has been connected with Colgate & Co. for 34 years.

M. G. Vidulich has been appointed to take charge of sales in the Eastern section of United States for Armand Co., Des Moines. His office is located in the Chanin Building, New York.

California Soap Co., Los Angeles, makers of *Sunny-Maid* granulated soap, has appointed Emil Brisacher and Staff, advertising agents, Los Angeles, to direct its advertising account.

Lever Bros., Ltd., of Toronto, recently announced a contest for the best dressed window display of Lux toilet soap throughout the merchants of Canada. The prizes total $6,300.

Puritan Soap Co., Rochester, N. Y., recently appointed J. F. Bush, Jr. as vice-president of the company in charge of sales. Mr. Bush, who is vice-president of Hughes, Wolff & Co., advertising agency of Rochester, will continue to be an officer of the agency and will retain his stock interest in it.

Frank J. M. Miles, formerly with Colgate-Palmolive-Peet Co., recently joined the staff of Max Factor, Hollywood. He plans to live in Altadena, Cal.

Shipley-Massingham Co., Pittsburgh, recently brought out a new brushless shaving cream called Speedex. It contains menthol and milk of magnesia, and is made to sell in the retail trade at 50c lb. An offer of free goods to dealers and special bonuses to salesmen accompanies the introduction of the new product.

Roscoe C. Edlund, director of *Cleanliness Institute,* concluded the series of talks on cleanliness broadcast over the Columbia Broadcasting System on July 2 when he spoke on *The Business of Cleanliness.* The series was started early in April, and a fifteen minute talk was given each Wednesday afternoon over a nationwide hook-up.

Eugene Schuck, formerly technical director of Nassour Brothers, Los Angeles manufacturers of castile soaps, has been named vice-president of the Pacific Soap Co. of that city.

James Hogg, managing director of McLeod Brothers, Dunedin, New Zealand, soap manufacturers and renderers, was a visitor in New York early in July en route via the Pacific Coast to New Zealand.

A new filter soap known as "Nox Spots" Liquid Dry Cleaniing Soap, has just been placed on the market by American Disinfecting Co., of Sedalia, Mo., makers of Adco products. This product is said to be completely soluble in any dry cleaning solvent and remains in solution.

W. A. Peterson, Chief Chemist of Kirkman and Son, Brooklyn soap manufacturers, has consented to serve as Secretary of the Soap Chemists' Section, American Oil Chemists' Society, again during the coming year. Mr. Peterson has been Secretary of the Soap Chemists' Section since its organization.

Thomas Haughland, of J. B. Williams Co. (Canada), Ltd., Montreal, was elected president of the Association of Licensed Manufacturing Perfumers of Canada at the second annual meeting of the group held recently in Corbyville, Ont. He succeeded J. N. Bouey who moved to Chicago during the past year. Other officers chosen were: vice-president, J. S. C. Jones, of Colgate-Palmolive-Peet Company, Ltd., Toronto; treasurer, Harry Rose, of Rose & Laflamme, Montreal; secretary, G. H. Marceau, of J. A. Marceau, Ltd., Montreal; assistant secretary, W. L. Linton,

WHEN IT COMES
to supplying the soapmaker

with perfume materials, we are in position to furnish the highest quality merchandise at interesting prices.

When Again in the Market for

Oil Rosemary Spanish
Oil Thyme Red and White
Oil Lavender Flowers French
Oil Vetivert Bourbon and Java
Oil Geranium Bourbon and African

Write Us for Prices.

All Products of

Bertrand Freres, S. A.
GRASSE FRANCE

Sole Representative U. S. and Canada

P. R. DREYER INC.
26 CLIFF STREET NEW YORK

Agent for

PAOLO VILARDI
Reggio Calabria, Italy
Essential Oils

H. RAAB & CO.
Roermond, Holland
Artificial Musks

VANILLIN FABRIK
Hamburg, Germany
Aromatic Chemicals

of Northrop & Lyman Company, Ltd., Toronto; and executive board members, G. T. Creighton and H. Cahley. The present membership of the group is forty-two, eight of these being associate members. This represents an increase of fourteen active members over the previous year. Subjects discussed at the meeting included excessive price cutting and government regulations on denaturants. A representative of the government explained that it would be impossible to eliminate the use of denaturants, but asked the association to present a constructive plan for handling the situation.

Unilever, Ltd., is reported to have acquired control of 25% of the French soap making plants, and also has large holdings in the oil industry there.

Colgate-Palmolive-Peet Co., Chicago, who will shortly acquire the coconut oil and meal factory of El Dorado Oil Co. in San Francisco, the merger having already been recommended by the directors of the latter company plans to call for the issuance of 25,000 shares of preferred stock and 30,000 shares of common stock in exchange for the 150,000 shares of El Dorado now outstanding. The El Dorado Co. had assets of $3,154,162 at the end of 1929, current assets of $2,515,717, current liabilities of $183,365, and surplus of $1,183,597.

The merger of the oil palm interests of three rubber companies, Linggi Plantations, United Sua Betong and Malacca was reported recently in London, England. The combination will provide approximately a million and a half dollars of new capital to extend their holdings under oil palm cultivation.

Guignon & Green, Inc., has recently been organized by C. F. Guignon and L. C. Green to act as selling agents in the New York territory for Columbia Naval Stores Co., Gillican Chipley Co. and Georgia Rosin Products Co. The branch of Columbia Naval Stores Co. which recently took over the marketing of the Gillican Chipley products, has been discontinued. The Guignon & Green office will be located at 17 Battery Place.

Harry Howe, of Dodge & Olcott Co., essential oils and aromatics, New York, was guest at a recent dinner at the Elks Club in Brooklyn, given him by a few of his friends in honor of the completion of his forty-eighth year with the company.

Atlas Soap & Chemical Co. recently filed articles of incorporation in the State of Delaware, with 25,000 shares of common stock.

William H. Rankin and George D. Smith, officials of William H. Rankin Advertising Co., New York, visited the plant of Pine Tree Products Co. at Newport, N. H., recently, preparatory to putting on a national advertising campaign on *Pine Tree* soap. Billy B. Van, head of the company, has achieved unusual success with the company without the use of national advertising up to this time.

Lever Bros. Co., owners of the trade mark, *Lux*, registered eighteen years ago for use on soap and soap powder in the form of flakes, was successful in its attempt to prevent the registration of the word, *Tex*, as a mark for washing and cleaning compounds by the Tex Company. The Court held that the goods of both parties were in the same class for trade mark purposes, and that there was likelihood of confusion in the use of the two marks.

George C. Frolich has recently been appointed general sales manager of United Drug Co., Boston, succeeding H. L. Simpson. He was associated with Parke, Davis & Co., of Detroit for 13 years before he joined United Drug in 1915 as manager of the publicity department.

Goodwin Co., Los Angeles, has been denied the right to register "E-Z-Flush" as a trade mark for a preparation for cleaning water-closet bowls. Registration was opposed by Hygienic Products Co., Canton, Ohio, owners of the mark, "Sani-Flush," for a similar product. The United States Patent Office held that the two marks were sufficiently similar to cause confusion.

Ungerer & Co., New York, recently announced that on July 1st it added A. T. Frascati to its research staff as perfume chemist. Mr. Frascati is very well known to the trade for his research work and creative abilities in the toilet preparations field. He is a graduate of Syracuse University, and for the past several years has been identified prominently with the perfume and cosmetic fields in New York, his work including extensive research in cosmetic preparations, originating formulas and compounding perfumes.

Dodge & Olcott Co., essential oils and aromatics, New York, recently issued a 56-page reference, giving prices and characteristics of the various products in which it deals.

This Trade Mark DARCO *On Every Carton*

ECONOMIZE!

Those who require the utmost in scientific production.

Insist Upon

DARCO DECOLORIZING CARBON

for the purification and decolorization of their oils and fats.

They are thus assured of maximum output of superior quality products at minimum cost.

DARCO SALES CORPORATION

45 EAST 42nd STREET
NEW YORK, N. Y.

Telephone:
Vanderbilt 1592

Cable Address:
DARCOSALE, New York

Say you saw it in SOAP!

SOAP CHEMISTS' SECTION
(Official Publication, SOAP SECTION, American Oil Chemists' Society)

Detergent Committee Reports

Findings of the American Oil Chemists' Society Committee Reported Before Annual Meeting

THE Committee this year reports progress but has no recommendation for a completed test of detergency.

The objective of the Committee is to devise a test which can be conducted in any laboratory to compare detergent action of soaps and eventually other cleansing materials. Detergent action in practice is extremely complicated, and the Committee feels it necessary to work toward the reduction of variables to the smallest possible number. To this end it has been decided to soil standard Utica sheeting with two pigments separately, a carbon black which has been extracted to render it freely miscible with water, and an umber representative of earthy materials. It has been found that a suspension of the particular umber selected containing approximately five grams per hundred cc. of distilled water when agitated at room temperatures with a piece of sheeting approximately 6½ x 3¾ inches will cause a stain which, after the cloth is passed through the tight-set rolls of an ordinary household clothes wringer, reaches an end point on the completion of something less than ten cycles. The cloth is then rinsed in distilled water until little pigment is released and is dried without ironing.

No starches, oils, or other organic materials are included because their presence is known to cause such changes that different results are obtained with freshly soiled and older materials. There is also some evidence to justify a working hypothesis that the solid insoluble material is the fraction of dirt which is ordinarily the last to be removed from the fabric and hence if detergents are to be evaluated on a basis of their ability to produce commercially clean fabrics their behavior with respect to the solid dirt is of primary importance. The Committee has not lost sight of the fact that oily and starchy materials affect the difficulty of removing soil, but this may be due to their influence in affecting the physical relationship between pigment and fabric.

Cooperative tests are planned to compare the action of tallow and olive-castile soaps at a concentration of .2% at a temperature of 150° Fahrenheit by washing in the Launder-Ometer for twenty minute intervals, the soap solutions being replaced without intermediate rinsing and the operations continued until the soiled cloth in the form of a bag containing a 56 gram load of ¼ inch Monel metal balls, matches the color of a blank made from the same cloth unsoiled and treated identically with the soiled sample in a separate jar. The end point will be taken as the point at which the soiled sample and the blank are judged to match, any available method of comparison being used according to the judgment of the operator, the number of cycles necessary to bring this about to be taken as the index of detergent action. A copy of the specifications being circulated to the Committee is attached.

Minutes of Detergent Committee of A. O. C. S. Meeting at Bureau of Standards, Washington, D. C., 4-5-30

THE chairman opened the meeting by reminding the committee that the task before it was to devise a reliable method for evaluating soaps according to their actual detergent power, which method could be followed by any laboratory. He also reviewed the several contributions of data made by members of the committee since the New York meeting.

A tentative outline of specifications for the next washing test was presented as a basis for discussion. In this, the most marked departure from previous practice was in the method of soiling, which employed, as materials, only cloth, water and pigment. A demonstration of the proposed method was given. There was active discussion on many of the points covered by the outline, resulting in the following decisions:

Cloth: Utica sheeting was selected. This should be as free as possible from sizing material. The chairman was authorized to learn from the manufacturer how this condition best may be secured, and to furnish cloth for the

(*Turn to Page 67*)

Soap Perfume Oils

Produced by

ROURE-BERTRAND FILS

LARAGNE (FRANCE) GRASSE BOUFARIK (ALGERIA)

Geranium African

Geranium Bourbon

Lavender Fleurs

Vetivert Bourbon

Petit Grain, South American

Ylang Ylang Bourbon

Ylang Ylang Nossi Be

As sole agents, in the U. S. and Canada, for Roure-Bertrand Fils, long a primary source of supply for these highly important Soap Perfume Oils, we invite comparison of these oils with those you are now using.

GEORGE SILVER IMPORT CO.

461-463 FOURTH AVENUE
NEW YORK CITY

Say you saw it in SOAP!

ON PRODUCTS AND PROCESSES

Naphtha in soap may be determined by distilling the naphtha over into a burette where it displaces water. It is said that no emulsification of the naphtha with the water occurs. *Ind. Eng. Chem. Anal Ed.* 2, 166-7 (1930).

◆

A cleaning fluid for removing spots from clothing and the like comprises fatty acid (oleic) 33 parts, pine oil 15 parts, potash 5 parts, water 10 parts, petrolatum 5 parts, benzene 4.5 parts, alcohol 1.25 parts, acetone 12.5 parts, amyl acetate 0.5 parts, coconut oil 0.75 parts and hydrocarbon solvent 12.5 parts. U. S. Pat. No. 1,748,999.

◆

Toilet soaps containing less than 0.03% free NaOH are liable to turn rancid and become spotted, because of changes in the fat. 0.03 to 0.10% free NaOH is characteristic of mild, well-keeping toilet soaps, while more than 0.10% may cause brown spots or the decomposition of sensitive perfumes. *Seifensieder-Ztg.* 57, 140-1 (1930).

◆

A patented detergent of an anhydrous nature is obtained by heating, to a reaction and fusion temperature, alumina, silica and alkali metal carbonate proportioned to produce a composition of the general formula $Al_2O_3(SiO_2)$ x (Na_2O) x —1, in which x is greater than 7. *U. S. Pat. No.* 1,745,844.

◆

If insufficient alkali is used in the saponification of a fat, the constants of the unsaponified portion are said to be different from those of the original fat. For example, the iodine number of original and half-saponified linseed oil are 179 and 168.5, respectively, of soybean oil 134 and 125.75, of cacao butter 37 and 32.25. *Ann. chim. applic.* 20, 67-73 (1930).

◆

It is reported that brass dies caused spots and rancidity in a toilet soap, while wooden dies produced well-keeping cakes of the same soap. *Seifensieder-Ztg.* 57, 141 (1930).

◆

A cleansing soap is made from 100 parts coconut oil, 40 parts glycerol, 65 parts 30° Baumé caustic potash lye, 5 parts alcohol and 5 parts benzol or light naphtha. The benzol may be replaced by oil of turpentine, carbon tetrachloride or carbon bisulfide. Fr. Pat. No. 675,321. Brit. Pat. No. 318,265.

◆

In a study of the development of rancidity in various fats stored under different conditions of light and air access, it was found that access of air greatly augmented the decrease in iodine values and increase in acid numbers. *Z. Untersuch. Lebens.* 58, 375-7 (1929).

◆

A method of determining talcum and zinc oxide in soaps is described as follows: extract five grams of the soap in a hot funnel until free from alkali, dry, ignite gently and weigh as talcum. If zinc oxide is present, the sample is decomposed with hydrochloric acid and zinc oxide determined in the acid solution. *Seifensieder-Ztg.* 57, 185-7 (1930).

◆

A patented shaving soap is prepared by mixing stearic acid, borax, distilled water and soap flakes dissolved in hot water and saponifying the mixture with ammonia. Lanoline, storax dissolved in alcohol, and lavender oil are then added. *Fr. Pat. No.* 668,605.

◆

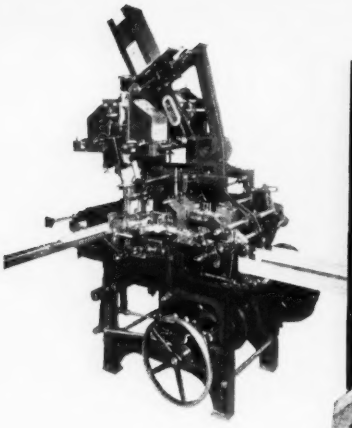
A composition for cleaning metals consists of quicklime (high in magnesia) 80 parts, kerosene 40 parts, stearic acid 20 parts and tallow 20 parts. *U. S. Pat. No.* 1,743,865.

◆

It is reported that a palm kernel oil soap containing fifty percent of methylhexalin and fifty percent of "calmett" oil will produce less lather in lathering tests than will a similar soap containing only ten per cent each of these fat-solvents. It is said that good lathering capacity may shorten the time of the washing process, but is not a measure of peptization or "protective colloid" activity.—*Z. physik.-chem. Seifenforsch.* 2, 66-9 (1929).

◆

Sulfonated naphthalene derivatives and castor oil are the basic materials for many "wetting-out" agents in use in the textile industries. One such agent consists of a solution of highly sulfonated castor oil in turpentine —*The Melliand* 1, 96-8, 243-8 (1929).



150 Cakes per minute

Some speed, when you consider what this machine does:—

1—It wraps the soap in an inner wrapper of glassine.
2—Folds a piece of cardboard around the cake.
3—Encloses the whole in a printed wrapper, with gummed flaps.

And it will wrap more than one size cake—by means of adjustments provided, and the use of interchangeable parts.

PACKAGE MACHINERY COMPANY
Springfield, Massachusetts
New York Chicago Los Angeles
London: Baker Perkins, Ltd.

PACKAGE MACHINERY COMPANY
Over 150 Million Packages per day are wrapped on our Machines

Say you saw it in SOAP!

CONTRACTS AWARDED

Harshaw Chemical Co. bid $3,625 on 500 tins of glycerin for Washington veterans' bureau in a recent bidding. Grasselli Chemical Co. bid $3,687.50. Swift & Co. bid $3,750. Armour & Co. bid $3,625. Crystal Soap & Chemical Co. bid $9,025 on 1,900 tins of petrolatum. Stanco Distributors bid $7,860. U. S. Sanitary Specialties Co. bid $11,664 on 1,900 tins of liquid cresol. Clifton Chemical Co. bid $10,431.

Procter & Gamble Distributing Co., Chicago, was recently awarded a quantity of toilet soaps for Chicago Quartermaster at 6.3c. Be Vier & Co., New York, awarded a quantity of 10-oz. cakes of toilet soap at 9.54c.

Noxon Chemical Products Co., Newark, bid 6.75c. on 12,000 cans of metal polish for Philadelphia U. S. Marine Corps in a recent bidding. Other bids registered included: Uncle Sam Chemical Co., New York, 9.4c.; Leeno Products Co., Baltimore, 10c.; James Good, Inc., Philadelphia, 11.4c.; and R. M. Hollingshead Co., Camden, N. J., 8c.

George Chemical Co. was recently awarded the contract for 20,000 lbs. of washing soda for Brooklyn medical department at a price of 1.89c. lb.

Colgate-Palmolive-Peet Co., Berkeley, Cal., was recently awarded the contract for a quantity of chip soap for Fort Mason Quartermaster at 7.703c.; quantity of powdered soap at 7.843c.; quantity of chip soap at 7.51c.

General Soap Co., San Francisco, bid $652.50 on 15,000 lbs. laundry soap for Panama Canal in a recent bidding. Other figures were: Armour & Co., Chicago, $735; Beach Soap Co., Lawrence, Mass., $868.50; Colgate-Palmolive-Peet Co., Chicago, $888; Procter & Gamble Distributing Co., Baltimore, $748.50; Swift & Co., Chicago, $990; Tiedemann & McMorran, San Francisco, $746.10.

Atlantic-Southwestern Broom Co. was recently awarded the contract for 7,400 corn brooms for Brooklyn medical department at 37c.

R. M. Hollingshead Co. was recently awarded the contract for 700 cans of floor wax for Brooklyn medical department at 28c.; also 350 cans at $1.04; awarded 4,000 cans metal polish at 7.5c. Batavia Mills, Inc., was awarded the contract for 50,000 lbs. washing soda at 1.64c.

William Goldenblum & Co. was recently awarded the contract for 60 insect powder blowers for Brooklyn medical department at 7c.

Barrett Co., New York, was recently awarded a quantity of naphthalene in barrels for Jeffersonville Quartermaster at 5c. lb.

Leeno Products Co., Baltimore, was recently awarded 300 gals. of liquid soap for Philadelphia Quartermaster at 26c.

Armour & Co., Chicago, was recently awarded a quantity of scouring compound for Washington Post Office Department at 2.24c. lb.

Exports of caustic soda from United States during the month of April, 1930, totaled 11,550,206 lbs., worth $348,181, with Japan taking 3,882,178 lbs. worth $107,571. Other large buyers were Mexico, West Indies, Brazil and Canada.

Exports of dental creams from United States during the month of April, 1930, had a total value of $173,719, with British Malaya, the largest buyer, taking products valued at $18,712. Exports of other dentifrices were valued at $19,517.

Magnus, Mabee & Reynard, Inc., essential oils, New York, are interested in securing copies of any of their old price-lists or catalogues prior to 1921; also catalogues of their predecessor companies, Magnus & Lauer from 1900 to 1907, Frank Hill Company 1899 and McKenzie Bros. & Hill prior to 1898. A reward is offered for any copies not at present in the company's files prior to 1903.

INTERNATIONAL HYGIENE EXPOSITION DRESDEN, 1930

If you are going to Europe this summer, why not combine the useful with the pleasant and visit the--

International Hygiene Exposition in Dresden, Germany?

The city itself is famous on account of its beauty, its lovely surroundings, its many treasures in architecture, museums, parks and finally its opera.

In the hygiene exhibition you will be able to study what the rest of the world has to show in new ideas regarding sanitation and public and individual cleanliness, in new processes and products to approach the realization of an ideal to which you, as a soap manufacturer, have devoted your knowledge, energy and capital.

The firm of J. M. Lehmann, Dresden, will exhibit a complete Automatic Soap Plant in full operation and representing the latest types of machinery which this concern—the largest in this line in the world—has designed and constructed. Their representatives will be present to give you any information you may desire and at their Main Office at Freiberger Strasse No. 108, Dresden A, a staff of engineers will be pleased to demonstrate to you the care and technical skill employed in the workmanship of their machines. If you are interested they could arrange for you a visit to a modern and up-to-date soap factory.

The exposition will last until the end of September, long enough to enable you to make this part of your itinerary. Consider this letter a standing invitation. You will be welcome any time.

Yours very truly,

J. M. LEHMANN COMPANY, INC.

Office
N. Y. City
250 West Broadway

Say you saw it in SOAP!

RECORD OF TRADE-MARKS

The following trademarks were published in the June issues of the *Official Gazette* of the United States Patent Office in compliance with Section 6 of the Act of September 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, fee of ten dollars must accompany each notice of opposition.

Trade Marks Filed

Instant—This in jagged letters together with lightning flashes, describing cleanser. Filed by Wm. C. Darrow Chemical Co., Kansas City, Sept. 12, 1929. Claims use since Mar. 1, 1927.

No Parking Hand Soap—This in solid letters describing handsoap. Filed by Blue Diamond Soap Co., Cleveland, Mar. 15, 1930. Claims use since Feb. 15, 1930.

El Greco—This in script describing soap. Filed by E. H. Constantine, New York, Mar. 19, 1930. Claims use since Feb. 15, 1930.

Eskimo—This in solid letters describing shaving cream. Filed by Lloyd W. Garrison, Hollywood, Cal., Apr. 14, 1930. Claims use since on or about Mar. 1, 1930.

Merodicein—This in solid letters describing disinfectants, antiseptics and germicides. Filed by Hynson, Westcott & Dunning, Inc., Baltimore, Mar. 20, 1930. Claims use since about Mar. 1, 1930.

Allison—This on reverse plate describing disinfectants and deodorants. Filed by Jess J. Allison, Newark, Apr. 15, 1930. Claims use since Jan. 1, 1930.

Neutrozone—This in solid letters describing tooth paste. Filed by John A. Maker, Duluth, Minn., April 21, 1930. Claims use since Apr. 18, 1930.

Badger—This in solid letters describing cleanser and water softener. Filed by Badger State Sales Co., Milwaukee, Jan. 23, 1930. Claims use since Dec. 18, 1929.

Super-Chlor—This in outline letters describing deodorizing and disinfecting preparation. Filed by G. S. Robins & Co., St. Louis, Mar. 6, 1930. Claims use since May 19, 1928.

C.-P.—This in solid letters describing dentifrices, shampoos and toilet preparations. Filed by Certified Personal Needs, Inc., New York, Mar. 13, 1930. Claims use since Feb. 27, 1930.

Seazone—This in shaded letters describing disinfectants and germicides. Filed by Seacoast Laboratories, Inc., New York, Apr. 26, 1930. Claims use since May 1, 1925.

Churchill's Sudzol—This in shaded letters describing scrubbing soap. Filed by Churchill Mfg. Co., Sioux City, Ia., Feb. 1, 1930. Claims use since 1921.

Representation of carton with words, "Royal Polish" and mark, "Bixby," describing shoe polish. Filed by 2 in 1-Shinola-Bixby Corp., New York, Apr. 25, 1930. Claims use since about Jan. 1, 1906.

Shinola—This in solid letters describing polishing and cleaning preparation. Filed by 2 in 1-Shinola-Bixby Corp., New York, Apr. 2, 1930. Claims use since Jan. 1, 1900.

Representation of container carrying word, "Shinola" on reverse plate, describing cleaning and polishing preparation. Filed by 2 in 1-Shinola-Bixby Corp., New York, Apr. 2, 1930. Claims use since Jan. 1, 1900.

Velvo—This in letters designed to represent soap bubbles, describing liquid soap. Filed by Selig Co., Atlanta, Apr. 10, 1930. Claims use since Jan. 10, 1922.

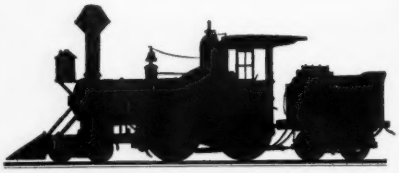
Drift—This in solid letters describing package soap. Filed by Procter & Gamble Co., Cincinnati, Apr. 23, 1930. Claims use since Mar. 24, 1930.

White Birch—This in solid letters describing soap. Filed by Swift & Co., Chicago, Apr. 24, 1930. Claims use since on or about the year 1905.

Old Castle—This in outline letters describing neutral soap. Filed by Churchill Mfg. Co., Sioux City, Ia., Apr. 28, 1930. Claims use since Apr. 1, 1930.

Flo-Vapor—This in solid letters describing deodorizing blocks. Filed by Selig Co., Atlanta, Mar. 21, 1930. Claims use since Mar. 20, 1925.

Spa—This on reverse plate describing bath salts. Filed by Noxache Chemical Laboratory, San Francisco, Apr. 8, 1930. Claims use since on or about Feb. 15, 1929.



"N" Brand
SILICATE
. . . a tradition

"N" Brand silicate has been rolling forward over the rails for the last 64 years. Bills of lading dated as far back as 1866 cover "N" Brand silicate in lots of two to ten "tierces," as barrels were then called. The shipments were consigned to soap makers well known in our present generation. Today they still buy "N" Brand, but modern production requires 10,000 gallon tank cars.

Down through the years of soap history "N" Brand silicate has been specified in each generation's formulae.

Philadelphia Quartz Co.
General Offices and Laboratory
121 S. Third Street, Philadelphia
Chicago Office: 205 W. Wacker Drive

"N" Brand Silicate is shipped in barrels, drums or tank cars from all our works located at Chester, Pa., Rahway, N. J., Buffalo, N. Y., Utica, Ill., Anderson, Ind., Kansas City, Kan., St. Louis, Mo.

VICTOR TSP

NO FREE MOISTURE

NO FREE MOISTURE! There, in a nutshell, is one of the outstanding reasons why Victor Tri Sodium Phosphate is famous for its free-flowing qualities.

No free moisture! Three short, simple words. Easy for anyone to say—but a claim that is exceedingly difficult to fulfill.

Only ceaseless vigilance in the application of a special drying and ageing process has given Victor T. S. P. an absolutely *moisture-free* record. . . . And in turn built a reputation as the T. S. P. known for its free flowing qualities.

See for yourself the result. Send today for liberal sample of Victor T. S. P.

VICTOR CHEMICAL WORKS
343 So. Dearborn Street
CHICAGO, ILL.
New York—Nashville—St. Louis

FREE FLOWING

Moth-It—This in solid letters describing insecticide. Filed by Selig Co., Atlanta, Apr. 19, 1930. Claims use since Feb. 18, 1929.

"Swish"—This in shaded letters describing stock spray. Filed by Midway Chemical Co., Chicago, May 5, 1930. Claims use since Jan. 2, 1930.

Sta-Put—This in solid letters describing fly repellant and disinfectant. Filed by Sta-Put Manufacturing Co., Columbus, Neb., May 10, 1930. Claims use since Dec. 15, 1929.

Apex—This in script describing soaps and washing powders. Filed by Apex Electrical Mfg. Co., Cleveland, Apr. 5, 1929. Claims use since July 3, 1918.

Breezy—This in script describing shaving cream. Filed by Wavenlock Co., Detroit, Apr. 21, 1930. Claims use since Jan. 16, 1922.

Representation of carton containing word "Flit" on reverse plate, drawing of soldier carrying spray gun and direction in a foreign language, describing insecticides, deodorants and disinfectants. Filed by Stanco, Inc., Wilmington, Del., Mar. 20, 1930. Claims use since Dec. 24, 1929.

Star ★ Brand—This in solid letters describing glycerine. Filed by Procter & Gamble Co., Cincinnati, Mar. 22, 1930. Claims use since July 8, 1929.

Airite—This in solid letters describing deodorants. Filed by Embree Mfg. Co., Elizabeth, N. J., Apr. 1, 1930. Claims use since about July 29, 1929.

Fly-Rid—This in solid letters describing insecticides. Filed by Ellis Jones Drug Co., Memphis, Tenn., Apr. 24, 1930. Claims use since 1911.

Kim—This in solid letters with other lines describing tooth powder. Filed by Kim Chemical Products Co., Albuquerque, N. Mex., May 5, 1930. Claims use since Apr., 1930.

Scale-O—This in solid letters describing insecticide. Filed by Andrew Wilson, Inc., Springfield, N. J., May 13, 1930. Claims use since May, 1915.

Trade Marks Granted

271,338. Cleanser. Di-Ox Products Co., New York. Filed Jan. 10, 1930. Serial No. 294,626. Published March 18, 1930. Class 4.

271,339. Polish. Tech Laboratories, Asheville, N. C. Filed Jan. 7, 1930. Serial No. 294,497. Published March 18, 1930. Class 16.

271,343. Meal Cleaner and Polish. Missouri Chromium Plating Co., St. Louis.

(*Turn to Page* 127)

New Patents

Conducted by

Lancaster, Allwine & Rommel

Registered Attorneys

PATENT AND TRADEMARK CAUSES

402 Ouray Building, Washington, D. C.

Complete copies of any patents or trademark registrations reported below may be obtained by sending 25c for each copy desired to Lancaster, Allwine and Rommel. Any inquiries relating to Patent or Trademark Law will also be freely answered by these attorneys.

1,757,441. Cleaning and Emulsifying Agent. Patented May 6, 1930 by Wilhelm Pungs, Ludwigshafen-on-the-Rhine, Germany, assignor to I. G. Farbenindustrie Aktiengesellschaft, Frankfort-on-the-Main, Germany, a Corporation of Germany. An emulsifying and cleansing composition comprising the oily hydrogenation products of oxids of carbon substantially insoluble in water, comprising in the main oxygen containing organic compounds, a soap, an aliphatic alcohol of low boiling point and a hydrocarbon boiling at a temperature above 20° C.

1,758,317. Cleaning and Polishing Fluid. Patented May 13, 1930 by Steven Hardy of New York, N. Y. A cleaning and polishing fluid comprising the following ingredients in substantially the following proportions: 3 parts linseed oil, 1 part olive oil, 1 part oil of rosemary, 4 parts glycerine, 2 parts oil of cedar, 1 part banana oil and 12 parts spirits of turpentine.

1,758,734. Insecticide. Patented May 13, 1930 by Harry V. McClellan, Seattle, Wash., assignor to Ernest S. McClellan, Crawfordsville, Ind. An insecticide embodying powdered ferrous carbonate.

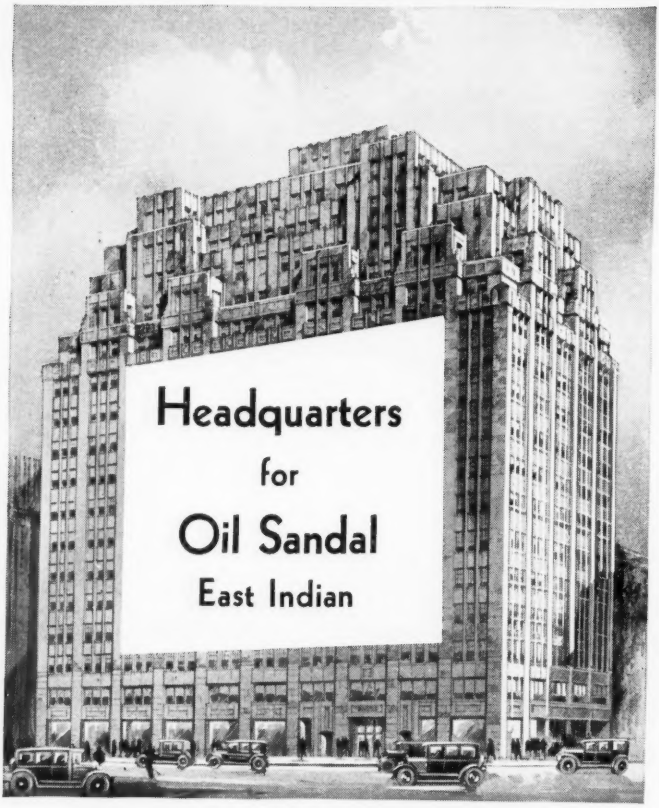
1,758,735. Sweeping Compound. Patented May 13, 1930 by Edward Conrad, Toppenish, Wash. A sweeping compound consisting of a shredded fibrous material, a mineral oil, and cedar oil.

1,759,155. Cleaning Fluid and Method of Producing. Patented May 20, 1930 by Bruce B. Farrington, Berkeley, Cal., assignor by mesne assignments, to Standard Oil Company of California, San Francisco, Cal., a Corporation of Delaware. A cleaning fluid capable of evaporating with sufficient readiness so as not to leave a ring

(*Turn to Page* 89)

D&O
ESTABLISHED IN 1798

ESSENTIAL OILS
SYNTHETIC AROMATICS
COMPOUNDED PERFUME BASES
For the Soap and Insecticide Industries



Oil Bois de Rose, Brazilian
Oil Patchouly Oil Cedarwood

DODGE & OLCOTT COMPANY
180 Varick Street New York City

*The integrity of the house is reflected in the quality of its products

Say you saw it in SOAP!

Market Report on

ESSENTIAL OILS AND AROMATICS

(*As of July* 8, 1930)

NEW YORK—The market for essential oils continued quiet during the recent period. In an effort to liven up the situation and create interest among the buyers, sellers shaded prices on a number of items. Lively competition developed whenever any buying interest was aroused in the market. Bergamot was still very weak, but reports that the Italian government might take a hand in the situation led to the belief in some quarters that higher prices might be seen shortly. Lavender oil was weaker on the report of a larger crop. Eucalyptus was also lower as a result of reduction in the import duty in the new tariff bill. Citronella Ceylon was considerably lower after weaker cables from abroad were received. Peppermint was lowered by domestic producers in an attempt to reduce the amount of carry over before new production begins.

Oil Bergamot

It was reported during the month that due to the exceptionally low price of bergamot oil, the Italian government would intervene to control the industry. This possibility was viewed in some quarters as a probable cause of higher prices within the near future. At present demand is small in spite of attractive quotations.

Oil Cedar Leaf

A small seasonal reduction in quotations was noted in this oil, the market continuing easy.

Oil Citronella

Lower replacement costs in primary markets sent oil citronella quotations lower during the period recently concluded. Ceylon oil was obtainable for as low as 50c. lb., with Java oil at 60c. lb., inside.

Oil Eucalyptus

The tariff bill recently passed by Congress reduced the tariff rate on eucalyptus oil from 25 per cent to 15 per cent ad valorem which has resulted in slightly lower prices in the

PLAIMAR, LTD.

Distillers of

Essential Oils and Fruit Essences

PERTH, W. AUSTRALIA

Sandalwood Oil	*Guaranteed Genuine*
Araucaria Oil	*A semi-solid natural aromatic*
Massoia Bark Oil	*with a warm rosy odour*
Huon Pine Oil	*Resembling Clove but more spicy.*
Eucalyptus Oil	*95% Methyl Eugenol.*
Otto Boronia [Concrete]	*All Grades and Varieties.*
	Australia's own flower.

Gum Acroides: Gum Kino

Ask for Samples and Quotations

THE IMPERIAL EXPORT COMPANY, Inc.

American Agents

11 Moore Street *Tel.: Whitehall 7622* **New York City**

Perfume Materials
OF THE
Highest Quality
True to Odor—True to Test

We Offer For Delivery From
Spot N. Y. Stocks:—
AUBEPINE
EX ANETHOL
TERPINEOL C. P.—
HELIOTROPINE
CINNAMIC ALDEHYDE
TERPINYL ACETATE
Write For Latest Prices. Samples
Upon Request

VANILLIN-
FABRIK

HAMBURG, GERMANY

Oil of
BERGAMOT
VILARDI

A manufacturer buying this brand is assured of securing an oil from the most important and reliable source of supply. It assures the user of obtaining absolutely satisfactory results.

Ask for a sample and be convinced that the

OIL OF BERGAMOT

supplied by the

HOUSE
of
VILARDI

is the kind you should use

Sole U. S. Agent

P. R. DREYER Inc.
26 CLIFF STREET - - - NEW YORK

Say you saw it in SOAP!

New York market. The inside price is now 48c. lb.

OIL LAVENDER

The prospect of a larger crop of lavender oil made sellers willing to shade prices on their spot stocks. Lower prices are looked for if the crop prospects hold good.

OIL PEPPERMINT

Both natural and redistilled peppermint oil were reduced materially as producers moved to dispose of their excess stocks before material from the next crop starts to come in.

Due to an increasing volume of business on the Pacific Coast, Pressed Steel Tank Company has opened a new Los Angeles office under the management of J. A. Barr, formerly connected with the Associated Supply Company. Mr. Barr will represent Pressed Steel Tank Company on all of the Hackney products. He is located at Room 456, Roosevelt Building, 727 West Seventh Street, Los Angeles.

Exports of soaps from Great Britain during March, 1930, totalled 106,503 cwts., worth £238,525 with 93,014 cwts. of this total being in the form of hard bar soap. Imports during the same period were 25,702 cwts. valued at £51,968.

Detergent Report

(*From Page* 55)

washing tests to cooperating members.

Soiling: This is to be done by each member, using umber and carbon black pigments, supplied by the chairman, and known to be satisfactory for the method as shown before the committee. That method is to be followed, and each member is to send to the chairman samples of soiled cloth, for comparison.

Shape of Cloth: The bag form was adopted for the next test. Each bag is to contain 50 Monel metal balls of so-called ¼ inch size, (to be supplied by the chairman). Two bags are to be used in each jar.

Washing materials: Tallow and olive-castile soaps were adopted for next test. (To be supplied by the chairman.)

Solutions: These are to contain .2% soap as furnished (2gm soap to 1000 cc.).

Washing: This is to be done by successive portions of soap solutions, without intermediate rinsing until the washing is finished. Blanks of unsoiled cloth are to be treated in parallel fashion in separate jars. The washing is to be considered as finished when the main portion of the soiled specimen reaches the same color as the unsoiled blank.

Judging: After rinsing and drying, the

(*Turn to Page* 71)

ESSENTIAL OILS
AROMATIC CHEMICALS

Prime Raw Materials for Soapmaking

MADE IN FRANCE

Phenylethyl Alcohol — Phenylacetic Aldehyde

Iso Eugenol

Flosal (The original Amyl Cinnamic Aldehyde)

Lavender Oil — Oak Moss Resin

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Market Report on

SOAP AND DISINFECTANT CHEMICALS

(*As of July* 8, 1930)

NEW YORK—Normal activity was reported in the market for soap and disinfectant chemicals during the period recently concluded. Shipments of alkalis held up fairly well in volume, mainly as a result of the heavy orders of petroleum refiners. In one quarter it was estimated that alkali sales in the first half of the year had run from 95 to 97 per cent of sales in the first half of 1929. Glycerine was lower again on all grades except soaps lye, after an advance in quotations last period. There was little activity in this market. Rosin quotations continued to plunge downward to new low levels. It is difficult now to see how prices can go much lower in this commodity. Much will depend on the size of this year's crop which is expected to be considerably smaller as a result of the unprofitable seasons during the past few years.

Alkalis

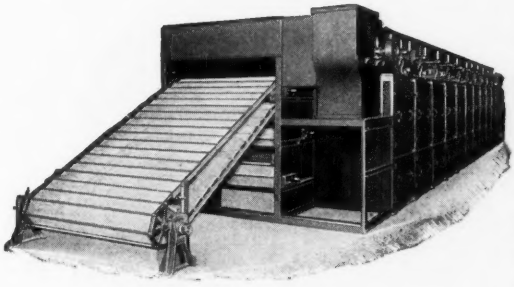
The demand for alkalis from the soap industry held up fairly well during the recent period, although the demand for use in the textile industry was considerably reduced. In view of the large amounts being shipped to petroleum refiners, however, there was no drop in total shipments. Sales for the first six months of the present year have held well up to the record totals set last year.

Glycerine

The glycerine market was very dull during the period recently concluded. C. P. was reduced to an inside price of 13c. lb., with dynamite at 10½c. lb. and saponification at 8½c.

Soaps lye was steady at 6¾c. to 7c. lb. Both buyers and sellers lack interest in the domestic market, and the foreign situation is reported to be equally quiet.

On Drying Soap—



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NAVAL STORES

A further decline was noted in rosin quotations during the recent period. Stocks in Southern markets were reported larger than at the same time last season, but as there was less material on hand at the stills the statistical position of the market was considered to show improvement. Demand in the domestic and foreign markets continues good at the attractive quotations now ruling. Nevertheless no considerable advance in prices is expected until production is reduced. The closing schedule follows: Grade B, $6.35; H, $6.43; K, $6.50; N, $6.90; WG, $7.15; WW, $8.20; wood works, $5.00 to $5.10.

Grasselli Chemical Co., Cleveland, recently issued a 26-page booklet listing the products which the company manufactures and distributes, and giving the locations of the works and warehouses. Among the products are included: caustic soda, soda ash, tri-sodium phosphate, caustic potash, naphthalene and paradichlorbenzene.

Exports of soda ash from United States during March, 1930, totaled 8,327,159 lbs. worth $141,426. Japan was the largest purchaser, taking 4,529,800 lbs., valued at $67,211.

Detergent Report

(*From Page 67*)

identity of the soiled specimen and the blank is to be judged by any means available to each operator.

The chairman was authorized to embody these decisions, and further details which appeared in the tentative outline and were approved without such discussion, in a set of specifications for the next test.

It was decided to ask members of the committee to cooperate by making a series of washing tests in their own laboratories, according to the new specifications which are to accompany copies of the minutes of this meeting.

Among other matters discussed were: The function of oily substances in soiling: the rates at which oil and pigment are removable from cloth; and the advisability of judging detergent power by comparison during the early stages of washing, rather than at the end of the process. The importance of these matters was recognized. The sentiment prevailed, however, that the committee should not enter upon them in the present stage of its work.

Thanks were expressed to the Bureau of Standards for its hospitality.

The Members attending the meeting were:

(*Turn to Page 75*)

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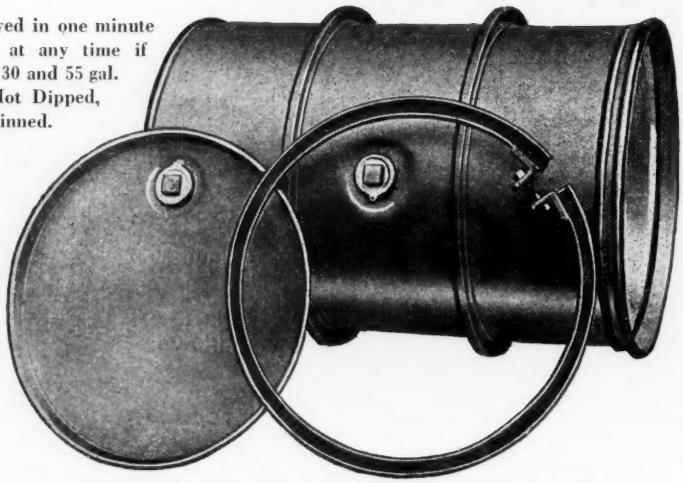

REPUBLIC STEEL PACKAGE COMPANY

7933 Jones Road Cleveland, Ohio

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Market Report on

TALLOW, GREASES AND OILS

(*As of July 9, 1930*)

NEW YORK—A slightly firmer tendency was noted in the market for soapmaking fats, oils and greases toward the close of the recent period. Buyers were willing to make substantial purchases at the ruling quotations, although they did resist any tendency to advance prices abruptly. They are holding large stocks, but are apparently willing to make additional purchases at the very attractive quotations now offered. The sentiment was expressed in some quarters that the bottom had been reached in a number of products, at least until the new crops start to come in. Coconut oil showed an advance during the period as a result of buying interest and light arrivals in Manila. Soya bean oil also advanced. On the down side of the market were oleo oil, tallow oil, palm and palm kernel oil. Tallow and grease also declined again. Stearic acid and red oil which have resisted the declining tendency of the market for several months, finally weakened, and were reduced substantially.

Coconut Oil

With New York tanks of Manila oil priced inside at 6⅜c. lb., the coconut oil market assumed a decidedly firmer tone. Buying interest was active during the month, making sellers unwilling to shade current quotations. Reports from Manila say that copra arrivals are lighter than should be expected, making the crushers reserved with their offers.

Corn Oil

The market for corn oil was quiet and practically unchanged, with both buyers and sellers awaiting further developments before making additional commitments.

Cottonseed Oil

Miner fluctuations occurred in the market for cottonseed oil during the period, leaving

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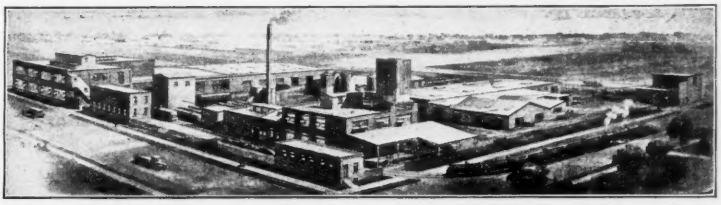

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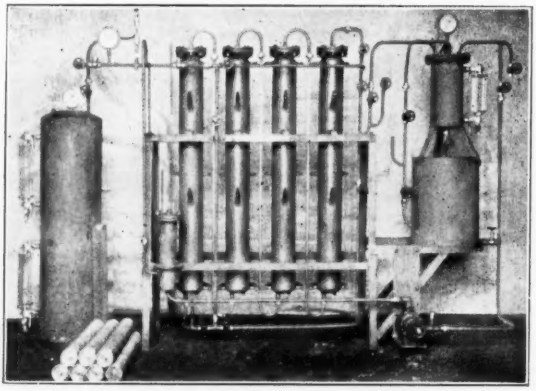

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quotations practically unchanged from the close of last period. The market was a little stronger at one time but closed with a quiet week due to the three-day holiday.

GREASE

A further decline was noted in the greases, quotations dropping to 4⅝c. lb. for the house and yellow varieties. Offerings at the decline were fewer in number, and the market seemed in a firmer position at the close.

PALM OIL

Both the Lagos and the Niger oils were considerably lower at the close of the recent period, with Lagos at 5¾c. lb., and Niger at 5½c. lb. At the close there was a firmer trend with inquiries increasing in the face of light stocks and fewer offers.

RED OIL AND STEARIC ACID

Lower quotations on raw material finally resulted in a decline in the price of stearic acid and red oil which were reduced twice within the recent period. The latter is now quoted at 9⅛c. lb. in bbls., while triple pressed stearic acid is 15½c. lb. in bags. Demand showed a considerable improvement at the decline.

TALLOW

Additional offerings of tallow at concessions were responsible for a further reduction in price during the period. City extra material is now obtainable at 5c. lb., a record low for recent years. Producers showed little interest in the market at the reduction.

Detergent Report

(*From Page 71*)

Percy H. Walker, Bureau of Standards, Washington; F. W. Smither, Bureau of Standards, Washington; Wm. Stericker, Phila. Quartz Company, Phila.; James C. Vail, Phila. Quartz Company, Phila.; John D. Carter, Phila. Quartz Company, Phila.; Ralph T. Mease, Bureau of Standards, Washington; N. S. Boucher, Lever Bros. Co., Cambridge, Mass.; M. L. Sheely, Armour and Company, Chicago; Foster Dee Snell, Cons. Chem., Brooklyn, N. Y.; W. C. Preston, Procter and Gamble, Cincinnati; W. H. Burkhart, Gold Dust Corporation, Baltimore; Wm. D. Appel, Bureau of Standards, Washington; F. H. Guernsey, Cowles Detergent Company, Cleveland, Ohio; L. T. Howells, Cowles Detergent Company, Cleveland, Ohio; E. B. Millard, Mass. Inst. Technology, Cambridge.

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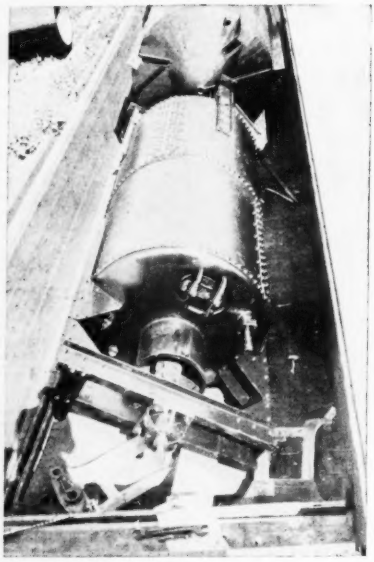

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Chemicals

Acetone, C. P. drums	lb.	.11¼	.14
Acid, Boric, bbls. 99½%	ton	135.00	162.50
Cresylic, 97%, dk., drums	gal.	.55	.60
97-99%, pale drums	gal.	.60	.70
Formic, 90%, tech.	lb.	.10½	.12
Oxalic, bbls.	lb.	.11¼	.11½
Salicylic, tech.	lb.	.33	.37
Adeps Lanae, hydrous, bbls.	lb.	.14	.15
Anhydrous, bbls.	lb.	.15	.16
Alcohol, Ethyl, U. S. P., bbls.	gal.	2.63	2.74
Complete Denat., No. 5, drums, ex.	gal.	.49	.54
Alum, potash, lump	lb.	—	.03½
Ammonia Water, 26° drums wks.	lb.	.03	.03½
Ammonium Carbonate, tech., bbls.	lb.	.10½	.11½
Bay Rum, Porto Rico, denat. bbls.	gal.	.75	.80
St. Thomas, bbls.	gal.	.75	.80
Domestic, bbls.	lb.	.70	.75
Bleaching, Powder, drums	100 lb.	2.00	2.60
Borax, pd., cryst., bbls. kegs.	ton	66.00	77.50
Carbon Tetrachloride, car lots	lb.	.06¼	.07
Carbon Tetrachloride, L. C. L.	lb.	.06½	.10
Caustic, see Soda Caustic, Potash Caustic			
China Clay, filler	ton	10.00	25.00
Cresol, U. S. P., drums	lb.	.14	.17
Creosote Oil, tanks	gal.	.13	.16
Formaldehyde, bbls.	lb.	.07¼	.07¾
Fullers Earth	ton	15.00	30.00
Glycerine, C. P., drums	lb.	.13	.13½
Dynamite, drums	lb.	.10½	.11
Saponification, tanks	lb.	.08½	.09
Soaps, Lye, tanks	lb.	.06¾	.07
Hexalin, drums	lb.	—	.60
Kieselguhr, bags	ton	35.00	—
Lanolin, see Adeps Lanae.			
Lime, live, bbls.	per bbl.	1.70	2.20
Menthol, cases	lb.	4.10	4.30
Synthetic, tins	lb.	3.00	3.65
Mercury Bichloride, kegs	lb.	1.65	1.80
Naphthalene, ref. flakes, bbls.	lb.	.04½	.05½
Nitrobenzene (Myrbane) drums	lb.	.09½	.10½
Paradichlorobenzene, bbls., kegs	lb.	.17	.25
Paraformaldehyde, kegs	lb.	.38	.39
Petrolatum, bbls. (as to color)	lb.	.02⅞	.03⅜
Phenol, (Carbolic Acid), drums	lb.	.14¾	.15
Pine Oil, bbls.	gal.	.62	.72
Potash, Caustic, drums	lb.	.06¼	.06⅜
Flake	lb.	.06½	.08
Potassium Bichromate, casks	lb.	.09	.09¾
Pumice Stone, powd.	100 lb.	2.50	4.00
Rosins (600 lb. bbls. gross for net)—			
Grade B to H, basis 280 lbs.	bbl.	6.35	6.43
Grade K to N	bbl.	6.50	6.90
Grade WG and WW	bbl.	7.15	8.20
Wood, works	bbls.	5.00	5.10
Rotten Stone, powd., bbls.	lb.	.02½	.04½
Silica, Ref., floated	ton	22.00	30.00
Soap, Mottled 40 lb. box	lb.	.15	—
Powdered White, U. S. P.	lb.	.26	.27
Green, U. S. P.	lb.	.07¼	.07½
Whale Oil, bbls.	lb.	.04	.05¼
Soda Ash., Contract, wks., bags, bbls.	100 lb.	1.32	1.55
Five bbls., up, local	100 lb.	2.34	2.49
Soda Caustic, Cont., wks., sld.	100 lb.	2.90	—
Five drums up, solid, local	100 lb.	3.76	3.91
Five drums up, grnd. flk.	100 lb.	4.16	4.31
Soda Sal., bbls.	100 lb.	1.00	1.15
Sodium Bifluoride	lb.	.17½	.19
Sodium Chloride (Salt)	ton	20.00	25.00

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Sodium Hydrosulphite, bbls.	lb.	.23	.27
Sodium Silicate, 40 deg., drum	100 lb.	.70	.80
Drums, 60 deg., wks.	100 lb.	1.65	—
In tanks, 10c less per hundred works.			
Tar Acid Oils, 15-25%	gal.	.26	.30
Trisodium phosphate, bbls.	lb.	.03¾	.04
Zinc Oxide, lead free	lb.	.06½	.07
Zinc Stearate, bbls.	lb.	.24	.26

Oils—Fats—Greases

Castor, No. 1, bbls.	lb.	12¼	.12½
No. 3, bbls.	lb.	.11¾	.10
Tanks, Coast	lb.	.06½	.06⅝
Coconut, tanks, N. Y.	lb.	.06⅜	.06½
Fatty acids, mill. tanks	lb.	.10	—
Cod, Newfoundland, bbls.	gal.	.50	.54
Copra, bulk, Coast	lb.	.03⅝	.03¾
Corn, tanks, mills	lb.	.07	.07¼
Bbls., N. Y.	lb.	.09½	Nom.
Fatty acid	lb.	.07¾	—
Cottonseed, crude, tanks, mill	lb.	.07¼	Nom.
PSY	lb.	.08¼	.08⅜
Fatty Acids, mill, bbls.	lb.	.08¼	—
Degras, Amer., bbls.	lb.	.03¾	.04½
English, bbls.	lb.	.04½	.05
German, bbls.	lb.	.03¼	.03¾
Neutral, bbls.	lb.	.07¾	.09
Greases, choice white, bbls., N. Y.	lb.	.05	.06½
Yellow	lb.	.04⅝	.04¾
Brown	lb.	.04½	.04⅝
House	lb.	.04⅜	.04¾
Lard, prime, steam, tierces	lb.	.10	—
Compound tierces	lb.	.10½	—
Lard Oil, edible prime	lb.	.12½	—
Extra, bbls.	lb.	.10	—
Extra, No. 1 bbls.	lb.	.09¾	—
No. 2, bbls.	lb.	.09¼	—
Linseed, raw, bbls., spot	lb.	.1400	.1480
Tanks, raw	lb.	—	.1320
Boiled, 5 bbls. lots	lb.	—	.1520
Menhaden, Crude, tanks, Balt.	gal.	.30	Nom.
Oleo Oil, No. 1, bbls., N. Y.	lb.	.10⅜	—
No. 2, bbls., N. Y.	lb.	.09⅝	—
Olive, denatured, bbls., N. Y.	gal.	.70	.80
Shipments	gal.	.70	—
Foots, bbls., N. Y.	lb.	.06¼	.06½
Shipments	lb.	.06¼	—
Palm, Lagos, casks spot	lb.	.06	—
Shipments	lb.	.05¾	—
Niger casks, spot	lb.	.05¾	—
Shipments	lb.	.05½	—
Palm Kernel, pkgs.	lb.	.07	.07⅜
Tank cars	lb.	.06¼	—
Peanut, refined, bbls., N. Y.	lb.	.11¾	Nom.
Crude, bbls., N. Y.	lb.	.09¼	.09¾
Red Oil, distilled, bbls.	lb.	.09⅛	.09⅝
Saponified, bbls.	lb.	.09⅛	.09⅝
Tanks	lb.	.08¼	—
Soya Bean, crude tks., Pac. Coast	lb.	.09¼	—
Crude bbls., N. Y.	lb.	.11	.11¼
Refined, bbls., N. Y.	lb.	.12	.12¼
Stearic Acid			
Double Pressed	lb.	.13½	.14
Triple pressed, bgs.	lb.	.15½	.16
Stearine, oleo, bbls.	lb.	.08	.08¼
Tallow, fancy, f. o. b. plant	lb.	.06	.06¼
City, ex. loose, f. o. b. plant	lb.	.05	—
Tallow, oils, acidless, tanks, N. Y.	lb.	—	.09
Bbls., c/l, N. Y.	lb.	—	.09¼
Whale, nat. winter bbls., N. Y.	gal.	—	.78
Blchd., winter, bbls., N. Y.	gal.	—	.80
Extra blchd., bbls., N. Y.	gal.	—	.82

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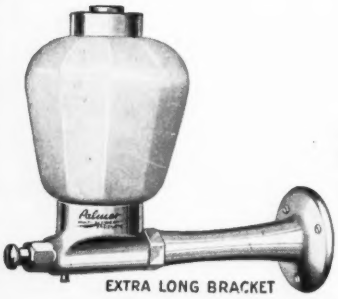


Palmer's MULTI-SERVICE PRODUCTS

Liquid Soap Dispensers

Guaranteed Equipment for Every Kind of Installation

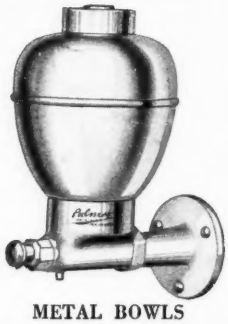
Fool-Proof — Mechanically Perfect—Substantially Built

Exclusive Bowl Replacement Feature

Permits replacement of broken glass bowls without removing bracket from wall although bowls in service are just as securely attached to bracket as though cemented in.

Opal—Clear Glass—Metal Bowls Interchangeable

Palmer PRODUCTS INC. WAUKESHA, WIS. Adjacent to Milwaukee

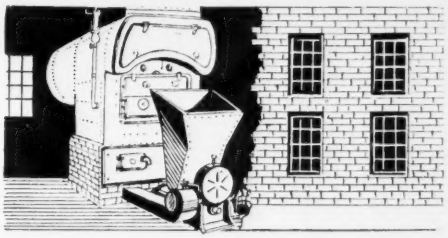


METAL BOWLS

Say you saw it in SOAP!

Essential Oils

Almond, Bitter, U. S. P.	lb.	2.50	2.75
Bitter, F. F. V. A	lb.	2.90	3.10
Sweet, cans	lb.	.57	.60
Apricot, Kernel, cans	lb.	.35	.36
Anise, cans	lb.	—	—
U. S. P. cans	lb.	.90	1.05
Araucaria, cases	lb.	1.75	1.80
Bay, tins	lb.	2.20	2.40
Bergamot, coppers	lb.	2.65	3.00
Artificial	lb.	2.00	2.25
Birch Tar, rect., bot.	lb.	.45	.50
Crude, tins	lb.	.13	.14
Bois de Rose, Brazilian	lb.	1.20	1.30
Cayenne	lb.	1.85	1.95
Cade, cans	lb.	.26	.27
Cajuput, native, tins	lb.	.75	.80
Calamus, bot.	lb.	3.25	3.50
Camphor, Sassy, drums	lb.	.25	—
White, drums	lb.	.25	.26
Cananga, native, tins	lb.	2.50	2.75
Rectified, tins	lb.	3.00	3.25
Caraway Seed	lb.	1.70	1.85
Cassia Redistilled, U. S. P., cans	lb.	1.35	1.40
Cedar Leaf, tins	lb.	1.00	1.10
Cedar Wood, light, drums	lb.	.39	.42
Citronella, Java, drums	lb.	.60	.62
Citronella, Ceylon, drums	lb.	.50	.52
Cloves, U. S. P., cans	lb.	1.65	1.70
Copaiba	lb.	.55	.60
Eucalyptus, Austl., U. S. P., cans	lb.	.48	.50
Fennel, U. S. P., tins	lb.	.95	1.00
Geranium, African, cans	lb.	4.00	4.50
Bourbon, tins	lb.	4.00	4.50
Hemlock, tins	lb.	1.00	1.10
Lavender, U. S. P., tins	lb.	2.60	5.00
Spike, Spanish, cans	lb.	.90	1.10
Lemon, Ital., U. S. P.	lb.	1.15	1.30
Lemongrass, native, cans	lb.	.65	.68
Linaloe, Mex., cases	lb.	2.30	2.40
Neroli Artificial	lb.	10.00	20.00
Nutmeg, U. S. P., tins	lb.	1.65	1.75
Orange, Sweet, W. Ind., tins	lb.	2.60	2.70
Italian, cop.	lb.	2.70	3.00
Distilled	lb.	1.55	1.60
Origanum, cans tech.	lb.	.25	.30
Patchouli	lb.	5.80	6.00
Pennyroyal, dom.	lb.	1.65	1.70
Imported	lb.	1.15	1.20
Peppermint, nat. cases	lb.	2.65	2.80
Redis., U. S. P., cases	lb.	3.00	3.10
Petit Grain, S. A., tins	lb.	1.80	1.90
Pine Needle, Siberian	lb.	.65	.70
Rose, Natural	oz.	13.00	21.00
Artificial	oz.	2.00	2.75
Rosemary, U. S. P., drums	lb.	.40	.45
Tech., lb. tins	lb.	.30	.35
Sandalwood, E. Ind., U. S. P.	lb.	8.00	8.50
Australian	lb.	5.65	—
West Indian (Amyris)	lb.	1.95	2.25
Sassafras, U. S. P.	lb.	1.00	1.10
Artificial	lb.	.29	.32
Spearmint, U. S. P.	lb.	4.25	4.50
Thyme, red, U. S. P.	lb.	.70	.80
White, U. S. P.	lb.	.85	.90
Tech.	lb.	.60	.70
Vetivert, Bourbon	lb.	6.00	6.25
Java	lb.	20.00	22.00
Ylang Ylang, Bourbon	lb.	8.00	9.00



It's Half the Plant

Of what use a fine car without a fine motor? Of what use the most modern soap making equipment without a real boiler—stoker fired —*it's half of any soap plant!*

Brownell Boilers

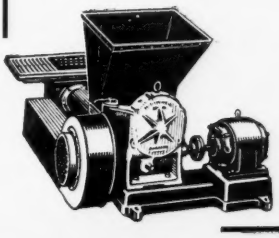
have been on the market 75 years, and in all those years no man has succeeded in building better ones! Installed in soap plants the world over—belongs in yours.

Brownell Automatic Stokers

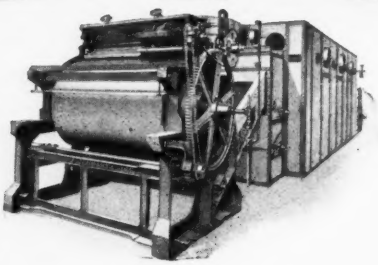
in various types and in all practical sizes. Heavier, more accurately built—like Brownell Boilers —worthy of the name they bear.

Get Boiler Bulletin B-9
Stoker Bulletin S-51

The Brownell Company
Dayton, Ohio
Established in 1855



Representatives in Principal Cities.

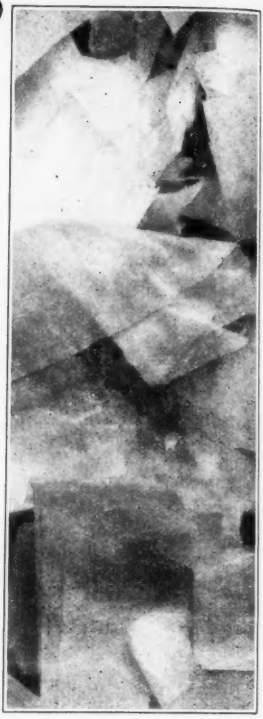


THIN CHIPS!

This new Proctor Dryer produces Soap Chips of transparent thinness—exactly the kind now in popular demand for package laundry soap—also the chip that can be produced most efficiently in making cake toilet soap.

New throughout—new chilling rolls—new dryer, this machine not only produces the most satisfactory soap chip, but it excels in high capacity, saving of floor space, reduced steam consumption, low cost of operation. Write.

PROCTOR & SCHWARTZ, Inc.
PHILADELPHIA



METZNER & OTTO

Leipzig, Germany

Essential Oils **Aromatic Chemicals**

We invite your inquiries, especially on

LAVENDESTER (M & O)

the latest Metzner & Otto product. A most satisfactory and extremely economical substitute for Lavender

also
Safrol and Sassafras Art.

Sole Agents for U. S. and Canada

EURO-AMERICAN CORPORATION

MAIN OFFICE AND LABORATORY

125 N. J. RAILROAD AVE., NEWARK, N. J.

Aromatic Chemicals

Acetophenone, C. P.	lb.	3.25	3.75
Amyl Cinnamic Aldehyde	lb.	4.00	8.00
Anethol	lb.	1.90	2.10
Benzaldehyde, tech.	lb.	.60	.65
F. F. C.	lb.	1.10	1.30
Benzyl Acetate	lb.	.75	.90
Alcohol	lb.	1.20	1.25
Citral	lb.	2.75	4.00
Citronellal	lb.	2.00	3.50
Citronellol	lb.	3.00	5.00
Citronellyl Acetate	lb.	13.00	14.00
Coumarin	lb.	3.40	3.60
Diphenyl oxide	lb.	1.15	1.25
Eucalyptol U. S. P.	lb.	.85	.95
Eugenol, U. S. P.	lb.	3.50	3.75
Geraniol, Domestic	lb.	2.65	2.75
Imported	lb.	3.00	3.25
Geranyl Acetate	lb.	2.75	3.50
Heliotropin, dom.	lb.	1.90	2.00
Imported	lb.	2.35	2.60
Hydroxycitronellal	lb.	5.50	6.00
Indol, CP	oz.	6.00	6.50
Ionone	lb.	5.00	10.00
Iso-Eugenol	lb.	5.00	5.50
Linalool	lb.	3.00	4.00
Linalyl Acetate	lb.	3.75	5.00
Menthol	lb.	4.15	4.30
Methyl Acetophenone	lb.	3.75	4.25
Anthranilate	lb.	2.40	2.60
Paracresol	lb.	8.00	9.00
Salicylate, U. S. P.	lb.	.40	.43
Musk Ambrette	lb.	6.50	7.00
Ketone	lb.	7.50	8.00
Xylene	lb.	2.60	3.00
Phenylacetaldehyde	lb.	5.00	8.00
Phenylacetic Acid, 1 lb. bot.	lb.	3.00	4.00
Phenylethyl Alcohol, 1 lb. bot.	lb.	4.50	6.50
Rhodinol	lb.	9.00	18.00
Safrol	lb.	.33	.35
Terpineol, CP, 1,000 lb. drs.	lb.	.30	.32
Cans	lb.	.31	.33
Terpinyl Acetate, 25 lb. cans	lb.	.80	1.15
Thymol, U. S. P.	lb.	2.00	2.40
Vanillin, U. S. P.	lb.	5.00	7.00
Yara Yara	lb.	1.50	2.50

Miscellaneous

Insect Powder, bbls.	lb.	.25	.27
Concentrated Extract	lb.	2.05	2.12
Gums—			
Arabic, Amb. Sts.	lb.	.16	.17
White, powdered	lb.	.22	.25
Karaya	lb.	.13	.27
Tragacanth, Aleppo, No. 1	lb	1.28	1.35
Sorts	lb.	.40	.45
Turkish, No. 1	lb.	.90	.95
Waxes—			
Bayberry, bgs.	lb.	.23	.24
Bees, white	lb.	.48	.50
African, bgs.	lb.	.30	.31
Refined, yel.	lb.	.34	.38
Candelilla, bgs.	lb.	.18	.19
Carnauba, No. 1	lb.	.29	.30
No. 2, Yel.	lb.	.27	.28
No. 3, Chalky	lb.	.20	.21
Japan, cases	lb.	.14½	.15
Paraffin, ref. 125-130	lb.	.04¼	.05⅜

TERPINEOL, C. P.

Water White—Fine Odor—One of the Best Low Cost Odors for Soaps, Fly Sprays, Deodorizing Blocks, etc.

MENTHOL, Synthetic

White Crystals with Fine Natural Odor for mentholated shaving creams, soaps, shampoos, lotions, creams.

CAMPHOR Synthetic

THYMOL U. S. P. Crystals

Products of Schering-Kahlbaum A. G., Berlin

SCHERING CORPORATION 110 William Street New York, N.Y.

Sole Import and Sales Agents in the U. S. A. for the Manufacturers.

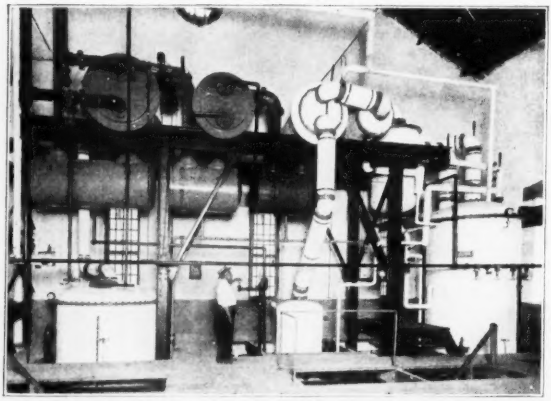
Stock Carried at New York

W&S
WURSTER & SANGER, INC.

GLYCERINE REFINING PLANTS

The most efficient Glycerine Refining Plant operating with the lowest refining loss and the highest yield of finished product.

The outstanding features of the WURSTER & SANGER process and equipment are:



WURSTER & SANGER GLYCERINE DISTILLATION PLANT

1. Highest yield of distilled glycerine.
2. Highest percentage of finished glycerine obtained on direct distillation, eliminating rehandling and losses.
3. Lowest steam consumption.
4. Extreme simplicity of operation.
5. Compactness of the plant.
6. Low operating costs.

New Plants Designed—
Old Plants Remodeled

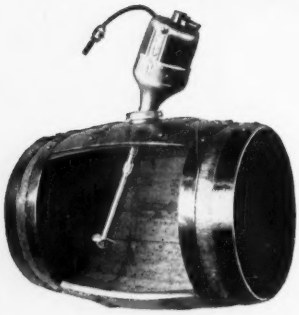
Complete Plants for

Crude, Dynamite and C. P. Glycerine
Laundry, Toilet and Liquid Soaps
Spray-Process Soap Powder
Fatty Acid Distillation
Fat Splitting, Stearic Acid and Red Oil
Refining of Fats and Oils
Hydrogenation of Oils

WURSTER & SANGER, INC.
5201 Kenwood Avenue
Chicago

LIGHTNIN PORTABLE MIXERS

Cut Costs in Mixing Soap Solutions



LIGHTNINS can be used on any type tank, or mixing container.

SO ECONOMICAL . . . SO EFFICIENT . . . SO DEPENDABLE in construction are LIGHTNIN Mixers that they are recognized as necessary equipment in mixing dips, insecticides, disinfectants, fluid polishes, soap solutions, etc. All sizes and speeds. Direct or geared types.

MIXING EQUIPMENT CO.

INCORPORATED

Originators and Largest Manufacturers of Portable Electric Mixers

1041 Garson Avenue, Rochester, New York

Branch Office and Sales Rooms
229 East 38th St., New York, N. Y.

Fully Patented. Investigate claims and avoid infringements.

Say you saw it in SOAP!

Soap Analyses

(*From Page 29*)

operating laboratory for the work done and the fine spirit of cooperation manifested.

The committee and cooperating laboratories follow: Ralph W. Bailey, Stillwell & Gladding, Inc., New York City; Chas. J. Gundel, Works Chemist, Fels & Co., Philadelphia; L. F. Hoyt, Manager Research Dept., Larkin Co., Inc., Buffalo; Martin H. Ittner, Chief Chemist, Colgate-Palmolive-Peet Co., Jersey City; H. J. Morrison, The Procter & Gamble Co., Ivorydale; W. D. Richardson, Chief Chemist, Swift & Co., Chicago; M. L. Sheely, Chief Chemist, Armour Soap Works, Chicago; M. L. Sheely, Chief Chemist, Armour Soap Works, *Babbitt Lab.*, Jersey City; H. P. Trevithick, Chief Chemist, New York Produce Exchange, New York City; R. B. Trusler, Industrial Fellow, Mellon Institute, Pittsburgh; H. C. Bennett, Chief Chemist, Los Angeles Soap Co., Los Angeles; V. K. Cassady, Chief Chemist, The Palmolive Co., Milwaukee; Curtis & Tompkins, San Francisco; M. R. Dickson, Chief Chemist, Colgate-Palmolive-Peet Co., Berkeley; M. M. Durkee, The A. E. Staley Mfg. Co., Decatur; F. E. Joyce, Haskins Bros. & Co., Omaha; A. J. Harvey, Technical Director, Lever Bros., Ltd., Toronto; John Ornfelt, LaFrance Mfg. Co., Philadelphia; Foster D. Snell, Brooklyn; W. J. Reese, Chief Chemist, Colgate-Palmolive-Peet Co., Kansas City; Wm. A. Peterson, Chief Chemist, Kirkman & Son, Brooklyn, Secretary, Soap Section, A. O. C. S.; A. K. Church, Chief Chemist, Lever Brothers Co., Cambridge, Chairman, Soap Section, A. O. C. S.

Soap in the Orient

(*From Page 33*)

ticularly the women. Before foreigners introduced soap into Japan, neither was this article known nor any similar substitute used. The Japanese, however, employed various kinds of powders made from rice grain, red beans, wheat flour, and a kind of jelly from kelp, and soluble in hot water, also the juice of snakeroot plant and of cucumbers. For washing their clothes, they used nothing but hot or cold water after shaking out the dust with the aid of a piece of bamboo or other wooden implement.

With the rapid popularity of all kinds of soap, particularly toilet soap, in Japan, an industry soon developed and with the aid of protective tariffs has been able to establish itself firmly in the market and at the same time to build up an export trade with China and other

SERVICE » »

is the only advertisement that can be read in the dark

WRISLEY knows how to help in the planning of packages, die shapes, colors and perfumes for milled toilet soaps to fit any requirements. With us the making of private brands is a specialty, and we are in position to render a real service.

Our facilities enable us to furnish bulk and private brand soap of nearly every kind and variety.

ALLEN B. WRISLEY CO.

6801 W. 65th ST. CHICAGO

Chicago Display Room
Merchandise Mart

New York Display Room
347—5th Avenue

POTASSIUM PERSULPHATE for Bleaching Soaps

A COMBINATION of POTASSIUM PERSULPHATE and BECCO ELECTROLYTIC HYDROGEN PEROXIDE for the improved bleaching of soaps. Learn about this newest bleaching agent which is already being used by some of the leading soapmakers.

Send samples to our laboratory for a free test of this new bleaching method.

BUFFALO ELECTRO-CHEMICAL COMPANY, Inc.

Station B. Buffalo, N. Y.

RAW MATERIALS for SOAP MAKERS

Specializing in

Olive Oil Foots
Olive Oil
Caustic Potash
Glycerine
Empty Drums
Fats, Oils, Greases

PARSONS & PETIT

Established 1857

26 BEAVER STREET NEW YORK

Distributors for
DIAMOND ALKALI CO.
PITTSBURGH, PA.
Caustic Soda Soda Ash

Agents for
D. CORREALE SANTACROCE
REGGIO, CALABRIA
Bergamot, Lemon and Orange Oils

Say you saw it in SOAP!

adjoining markets. Her production of toilet soap is now valued at approximately Yen 23,000,000 annually, that of industrial soap Yen 2,000,000, and that of laundry and other kinds Yen 10,000,000 (One Yen is the equivalent of about 49 cents). Exports from Japan average little over Yen 1,700,000 a year, and consist mostly of toilet soap.

In spite of a heavy duty on foreign soaps, the present tendency is for larger quantities of the better qualities to be imported. It is practically impossible to compete with the Japanese in low-grade goods on account of the cheap labor and protective tariffs. On the other hand, Japanese manufacturers are not able or do not care to produce the higher qualities. The perfume in a soap goes a great way in influencing the Japanese buyer in his (or her) choice of one particular brand or other. There is also a tendency among Japanese, which every year that passes seems to accentuate, to prefer imported soap to those made locally. This is particularly the case among the more well-to-do classes, who do not mind paying more for "hakurai-mono" (merchandise made abroad). Many of the soaps made in Japan are imitations of foreign makes, including the packing and wording. When marketing soap in Japan, it is advisable to have as little Japanese wording as possible on the label, in fact, a box of soap with a design and explanation entirely in English is more likely to find favor, than one with copious instructions in Japanese. The Japanese who wishes a foreign soap will be careful to see that an imitation is not passed off on her or him.

While the market for foreign soaps in Japan is limited, an appreciable quantity, mainly toilet, is imported every year. The best course is to appoint a foreign firm already established in Kobe, Osaka, or Yokohama to act as one's selling agents. Direct sales to department stores and Japanese merchants are also possible, but no risks should be taken and the usual export terms insisted upon.

Japan affords a good outlet for the sale of raw materials required for the manufacture of soaps and she is dependent on outside supplies to a considerable extent. Business in these commodities should be done in the same manner as outlined above.

Foreign firms established in Japan usually do their business in the following manner. A "Banto" (sort of interpreter) is employed, and it is for him to introduce customers. For this purpose, he must be well connected and thoroughly familiar with the articles handled. He received a monthly salary of Yen 120 to

Do you know that . . .

GLYCO WAX

has enabled cosmetic manufacturers to produce* Cold Creams *that

1—Possess a superior gloss

2—Do not turn rancid

3—Stand up perfectly in hottest climates

4—Are uniform and free from air-bubbles

5—Cost less than other high-grade creams

Nourishing and Cleansing Creams are similarly improved by the use of

GLYCO WAX

A LEADING cosmetic chemist has prepared formulae for making creams of the highest quality. These formulae have been tried and tested and have been on the market for six months.

These formulae for making

Cold Creams—Lemon Cream
Vanishing Cream—Astringent Cream
Liquid Creams—Nourishing Cream
Cleansing Cream
Latherless Shaving Cream
Hair-wave Lotion—Liquid Face Powder
Honey and Almond Lotion

are available without cost to our customers.

GLYCO WAX is offered as follows, f.o.b. New York:

300-Lb. Bbls.	40-Lb. Cans	7½-Lb. Trial Cans
22c Lb.	27c Lb.	32c Lb.

GLYCO PRODUCTS CO.
INCORPORATED

Bush Terminal Building No. 5
Brooklyn, New York

STANDARD • GRADE • SILICATE • OF • SODA

RELIABLE

"RELIABLE"... significantly wording the final judgment of Soapmakers . . a warrant of the Clarity and generally Uniform elements, upon which our claim for recognition is based. Specify "Standard" with the utmost assurance.

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OFFICE:
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FACTORIES:
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Marseilles, Ill. Jersey City, N. J.

4 Factories 4 Better Service

PATTERSON AGITATOR

They're Different

PATTERSON AGITATOR UNITS should not be confused with the ordinary agitator drive. Here is as rugged a piece of processing equipment as you can buy. Made in many styles and sizes, readily mounted on your present tanks, vats or kettles. Patterson agitators have rigid one-piece frames, ball-thrust bearings on stirrer shafts, machine cut gears and positive gear-guards. They are always in perfect alignment, are dust-proof and are equipped with an excellent lubricating system.

Write for copy of the PATTERSON Mixer & Agitator catalog. It lists over 100 different mixers, agitators and stirrers.

The PATTERSON FOUNDRY & MACHINE COMPANY

Richard L. Cawood, President

East Liverpool, Ohio U. S. A.

New York Philadelphia
Chicago Los Angeles

PATTERSON MIXER and AGITATOR

Say you saw it in SOAP!

Yen 200 (about $100) a month and a bonus at the end of the year on results.

IMPORTS OF SOAP AND RAW MATERIALS INTO JAPAN

	1927 (Yen)	1928 (Yen)	1929 (Yen)
Soaps	161,952	197,661	227,682
Oils, fats, waxes, perfumes & preparations	200,743	310,723	309,536
Perfumed Waters ...	354,782	490,672	447,637
Other oils, fats, waxes, and mfg. thereof ..	1,392,877	2,051,352	2,412,293
Paraffin Wax	6,014,979	6,697,469	5,425,104
Caustic Soda, crude ..	5,699,139	8,201,121	6,004,043

Soap Patents

(*From Page 37*)

a fatty nature, consisting in saponifying the oleaginous contents, which the fullers' earth has artificially absorbed and retained by virtue of its having been used for deodorizing and decoloring substances of a fatty and oily nature.

82. Wiedermann 968,438. Aug. 23, 1910. The process for the manufacture of bleached soap consists in adding alkali salts of the persulfuric acids to the components of the soap after the beginning of the saponification.

83. Cassel 1,007,531. Oct. 31, 1911. The process for the manufacture of crude oil soap, which consists in adding by-products containing montan wax to the soap substance before combining with crude oil.

(*To be Continued*)

New Patents

(*From Page 63*)

in material cleaned therewith, and consisting of a petroleum distillate having a boiling point range between 220° F. and 400° F., admixed with sufficient carbon tetrachloride to raise the flash point above 100° F., but containing less than fifty per cent carbon tetrachloride.

1,760,087. Soap-Cutting Apparatus. Patented May 27, 1930 by Julius A. Schwantes, Wauwatosa, Wis., assignor to Colgate-Palmolive-Peet Co., Chicago, Ill., a Corporation of Delaware. In a machine of the character described, the combination with the cutting mechanism for cutting soap bars into cakes and a delivery mechanism for receiving the cut cakes, of means under the control of an operator at the feeding end of the machine for controlling the cutting mechanism, means under the control of an operator at the delivery end of the machine for controlling the delivery mechanism, and

(*Turn to Page 129*)

CARBORAFFIN
AND
ESBIT
High-Active Decolorizing Carbons
Suitable for All Kinds
of Decolorizing Work
ALLIED ACTIVE CARBON CO., INC.
551 FIFTH AVENUE NEW YORK CITY

DIAFILT

A Diatomaceous Earth of Quality that You Can *Prove By Test.*

Uniform in efficiency

Dependable in supply

Economical in cost

and **an efficient service insured by our Engineering Staff.**

We solicit your interest and an opportunity to furnish further information.

Industrial Chemical Sales Co.

Incorporated

230 Park Avenue
New York, N. Y.

205 W. Wacker Drive
Chicago, Ill.

AN ADHESIVE FOR EVERY MACHINE OR HAND OPERATION

"A Perfect Appearing Package"

is now the order of the day. Warped and blistered packages are no longer acceptable either to your own sales department or to your distributors. The registration of the label must be exact, too. Hence the increasing popularity of

MIKAH

Package Wrapping Glue

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INSECTICIDE AND DISINFECTANT REVIEW

Official Publication of *The Insecticide and Disinfectant Manufacturers Association.*
Harry W. Cole, Holbrook, Mass., Secretary.

Terry Patent Appealed

THE Terry Patent Case was appealed by the plaintiff on July 1. Notice of appeal was filed on that date in California, the expiration of the time of appeal being July 5. It is believed that several months will elapse before a hearing on the appeal will be held.

Decision in the Terry Patent suit—the Terry Fly Spray Company of California against the An-Fo Manufacturing Company, also of that state, for alleged infringement of a patent covering liquid petroleum pyrethrum insecticides—was rendered in the United States District Court at San Francisco late last February. In a rather clear decision, in which several instances of proved prior manufacture were quoted by the Court, the action against the defendant was dismissed. This decision was equivalent to declaring the patent invalid.

In view of the positive character of the original decision in the District Court and the evidence upon which it was based, we are considerably surprised that an appeal has been taken. Frankly, in our sublime ignorance of things legal, we cannot see what good it will do. All we can see is additional expense for both sides and further drawn-out legal proceedings. The decision of the District Court was clean cut and decisive. A reversal in the higher court would be decidedly unexpected. However, the industry will have to wait probably until the end of the year before a further decision is rendered, and nobody knows in advance what this will be.

Coefficient or Not?

ALL coal-tar disinfectants shipped in interstate commerce would have to bear a label stating the phenol coefficient of the product and the method used to determine this coefficient, if a recommendation of the Disinfectant Committee in its report before the Chicago meeting of the Insecticide & Disinfectant Manufacturers Association were to become law. Although there was a dissenting minority opinion, the majority opinion of the committee expressed the view that the shipment of disinfectants bearing no indication of coefficient or other marks showing strength or indicating the germ killing power of the material, made possible much of the fraudulent practice and fakery in disinfectant sales. The Committee sees in the elimination of such unmarked goods the removal of a great part of the low quality goods from the channels of the trade. The Committee proposes that such a ruling become part of the regulations of the Food and Drug Administration in its enforcement of the law.

The reasons for the recommendations of the Committee are obvious. Poor quality coal-tar disinfectants are not labelled as a rule because to label them accurately would be to expose their shortcomings. Therefore, they are just called "disinfectant." Compulsory labelling of all disinfectants with phenol coefficient would certainly be a step toward the elimination of sharp practice and fakery.

Nomenclature

WHAT is a disinfectant? An antiseptic? A germicide? Leading scientists of the disinfectant industry have been attempting to define accurately these terms for some time, but are not in full accord in all of their definitions. That the terms have been used interchangably and inaccurately in literature and on labels is evidently agreed. The discussions of the past two years at meetings of the Insecticide & Disinfectant Manufacturers Association are further evidence that accurate and concise definitions are needed. The action of the Association at its recent meeting in Chicago in appropriating fifteen hundred dollars for a committee to use in this work, and especially in calling in outside expert opinion, is to be commended. The results of the findings of the Committee will be received with keen interest.

Exports of automobile polishes totalled 162,195 lbs., worth $45,765, for March, 1930, as compared with 82,433 lbs., valued at $20,250 for March, 1929.

The Insecticide *and* Disinfectant Manufacturers Association

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Membership

Active—Open to manufacturers and wholesale distributors of disinfectants, germicides, deodorants, insecticides, liquid soaps, polishes, and allied products. Dues—$75.00 per year.

Associate—Open to firms supplying raw materials, containers, equipment, etc., to the membership. Dues—$50.00 per year.

For further details, communicate with
INSECTICIDE & DISINFECTANT MANUFACTURERS ASSOCIATION
Harry W. Cole, Secretary
HOLBROOK MASS.

Notes of the Trade

United States Patent Office has refused New York Insecticide Co., Medina, N. Y., permission to register the phrase, *Originators of Fine Dust*, as a trade mark for insecticides, holding that it is an informative descriptive slogan and so not registerable.

Hillyard Chemical Co., makers of insecticides and disinfectants, St. Joseph, Mo., will build a new two-story addition to its plant at a cost of about $90,000. The new unit will be used to house the offices, and to supply additional room for storage and distributing departments.

"Sales of Lehn & Fink Products Co. in the first five months of 1930 were about 6 per cent less than in the similar period of last year, and earnings were down about 3 per cent," according to A. R. M. Boyle, secretary of the company. In the first six months of 1929 net profit was $923,116, equal to $2.20 a share on the stock.

Clorox Chemical Co., San Francisco, has declared its regular quarterly dividend of 50c per share on A and B shares, payable July 1, at the same time declaring a 2 per cent stock dividend payable in the A shares of the corporation to be distributed to shareholders on July 30. Sales of the company for the first ten months of the present fiscal year, beginning July 1, 1929, exceeded sales for the same months of the preceding fiscal year by 34 per cent.

Dominion Tar & Chemical Co., Montreal, Canada, has added another creosoting unit to its chain through acquisition of Calders, Canada, Ltd. This company operates a creosoting plant at Sioux Lookout. This makes the thirteenth creosoting unit either owned or controlled by Dominion Tar.

Mortex Exterminators has been organized by Arthur Srebren, head of Mortex Products Co., Chicago, to operate exterminating organizations in several middle western cities. The main office will be located at 247 E. Illinois St., Chicago. Mortex headquarters, and one branch has already been opened at the Inland Bank Bldg., Indianapolis. Mortex Products are manufacturers of bulk theatre sprays, disinfectants, insecticides, etc., to the trade.

Correlating PYRETHRUM TESTS

By A. WEED*
John Powell & Company

LTHOUGH we are at present confronted with a considerable amount of research data dealing with pyrethrum and pyrethrum extracts, there exist many phases of this work which have as yet been unexplored. The relatively recent use of petroleum extracts of pyrethrum as insecticides, and the impetus for the exploitation of the agricultural field, has given rise to a number of papers concerning its toxicity, both from the chemical and entomological aspects. The interpretation, in practical terms, of such laboratory results, collected under conditions which are carefully controlled, is often difficult, but to be of value except to pure science such information should be tangible, definite, and applicable to the industry as a whole, since the laity concerned with such materials numbers hosts.

The subject of pyrethrum has been studied from three angles, all bearing directly upon its toxicity. Several investigators have largely confined their endeavors to a chemical search for the active principles, which are responsible for the death dealing power of the blossoms. The results of these studies brought to light Pyrethrins I and II in 1924, and the seat of these materials in the flowers, the quantity which is present in the blossoms at different stages of growth, and their abundance in flowers from different localities has since been shown. The possibility of substitution of organic materials to replace pyrethrum has been the subject of considerable investigation, while other workers have studied physiological aspects of the subject and the toxicity of the flowers in various solvents in practical applications.

Without doubt, the importance of chemical methods of standardization are far-reaching, but have they as yet accounted for all of the toxic principles involved or have they illustrated satisfactory correlation with killing power? Is it, therefore, feasible to adopt the pyrethrin content of pyrethrum powder as the controlling point in evaluating the quality of such powder? To be sure, pyrethrins present a refinement in the differentiation between the active and non-active components contained in the flowers, but has this refinement reached the specific? Such workable methods as are now in vogue for the assay of pyrethrum flowers are a bit cumbersome, are fraught with steps in the procedure requiring a nicety of accurately controlled conditions, and require fully as much time if not more than a biological test. These accepted methods have not been used as yet, to our knowledge, for the analysis of liquid extracts, although we are in a position at this time to state that a method has been developed with this as the objective, and has been employed successfully in our own investigations. However, until such methods have conclusively demonstrated their applicability to *liquids*, their use is limited, for through production losses, the pyrethrin content of extracts is difficult of interpolation based upon the original flowers without a subsequent analysis of the residue.

It is not our purpose, however, to argue the merits of either the chemical or biological viewpoint, as we employ both, but we are interested in discussing a few of the factors apparent in the physiological testing of pyrethrum extracts, for to the manufacturer and to the ultimate consumer of these insecticides there is no more satisfactory assurance of the quality of such materials than a demonstration of toxicity such as is manifest in practical tests upon the insects for which such materials are prepared.

Assuming that the test insect, the pyrethrum, and the solvent are of primary importance in ascertaining toxicity, and we feel that this assumption is logical, it must be remembered that there are many other factors which exert their influence upon the results secured in practical tests, each of which, or in combination, may give rise to deviations with a resulting lack of correlation. These factors have been discussed by Peet and Grady.

The test insect, and a majority of our experiments are conducted upon flies, will be found to be a variable complex, exhibiting individual differences in hardiness which cannot be traced wholly to their environment,

* Before the Insecticide & Disinfectant Mfrs. Assn., Chicago.

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although food and surroundings may be largely responsible. Uniformity in the results and a satisfactory degree of correlation in series of tests is only secured when the fluctuation of the factors associated with their habitat is reduced to a minimum. This involves the culture of equal numbers of larvae in rearing jars, supplying them with equal quantities of the substrate, their maintenance on equivalent foods, together with their maintenance under uniform and similar conditions of temperature and moisture. In the pupal or resting stage, moisture is important. Flies emerging from pupae which have been kept with insufficient moisture are vitiated. As adults, the flies which are used for test purposes, must be kept in the best of condition. Different lots should be maintained on the same food, kept free from parasites, and under similar environmental conditions. The importance of a well cared for strain of flies, uniform in vigor and size, cannot be over-stressed, for only under these conditions can a satisfactory degree of parallelism in results be secured.

For example, over a series of biological tests the larvae in one jar may have been slightly undernourished due to overcrowding and the flies on emergence are diminutive. When these individuals are used for test purposes the results exhibit a greater deviation, as measured by their resistance to pyrethrum. Similar conditions are manifest when very young or old flies are checked against flies ranging in age from 72-120 hours. Because of individual differences a large number of flies must be used for testing purposes.

THE pyrethrum from which extracts are prepared is very important in terms of toxicity. Our own findings on the toxicity of flowers, both by chemical and biological means, do not wholly corroborate the results secured by other investigators. In representative samples of commercial flowers submitted for our consideration, we frequently encounter the half-open Dalmatians exhibiting greater toxicity than open flowers from the same locality, and Jap flowers are not necessarily more toxic than Dalmatians, as some of the best flowers which we have been privileged to handle have been of Dalmatian origin. The blanket statement that Jap flowers are superior to Dalmatian may be correct collectively, but cannot be taken as governing all lots. If soil, climate, harvesting date, and subsequent handling of the flowers control their toxicity, it is to be expected that the crops from different areas of ground in a given locality will vary, but we are forced to concede that not infrequently Dalmatian flowers are superior to those coming from Japan.

That the content of toxic principles varies in finished products as well as prepared concentrates is a known fact, although such extracts may have been prepared from flowers which were identical as measured by analytical means. Such a condition does not necessarily indicate variation in composition, but the influence of factors associated with preparation of such extracts. These differences may often be attributed to fallacies in plant production or to fineness of powder, period of maceration, the time increments of percolation or agitation, temperatures of solvent recovery, etc. Deviations from a stipulated method of extraction in the laboratory yield extracts which in biological tests do not give a satisfactory uniformity of results, and such lack of correlation can be traced to inefficient extraction. This particular situation, of poor extraction is frequently encountered in the industry, and can only be overcome by a thorough analysis of the method employed with a possible revamping of the process.

A subject, to our way of thinking, which has not received sufficient consideration from the standpoint of toxicity, is the solvent which is employed, or the diluent used in cutting already prepared concentrates. Some petroleum fractions do not possess satisfactory characteristics as vehicles for pyrethrum. The apparent desire among manufacturers in the trade to use a solvent which is free from greasy residual matter and which will not stain has led to the use of refined volatile solvents which do not enhance the killing power of the solute. The exact explanation of this situation is difficult and requires a more detailed investigation, but seems to be tied up in a physico-chemical manner with the activity of the poison on the insect.

Regardless of the manner of penetration of the toxic material to vital parts of the insect, whether it be through the spiracular orifices or directly through the body covering of chitin, there is required a little time before the first indications of its effect are manifest, which manifestation is usually the loss of control of the legs. The dosage to be lethal involves subjecting the insect to longer periods of exposure to an atmosphere carrying spray particles of the insecticide in which the toxicity is borne. Whether or not the solvent assists in actual penetration we are not in a position to state, but when highly volatile ones are employed the mist of spray leaving the sprayer is quickly dissipated resulting in a vapor which is too dry to be effective and which cannot be seen in the test chamber. Standard laboratory extracts prepared with volatile solvents as contrasted to those which are less volatile, always exhibit a lower degree of killing power, and

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a check on the specific gravity, and initial and end boiling points of the solvents will be found helpful in the explanation of such results.

In the actual conduct of physiological tests, there are a number of causes for variation in the results. The factors concerned include individual hardiness of the insects, temperature and moisture relations, quantity of liquid employed, period of exposure, air pressure in the sprayer, size of spray particles, toxicity of the solvent, etc., and they have been reviewed by Peet and Grady.

ONE of the first questions which arises in the testing for the comparative effectiveness of unknown samples of liquid insecticides of the kerosene extract of pyrethrum type is what mortality shall be obtained with a standard laboratory product to be used as a base line, assuming that killing power is to be the basis upon which the products are to be judged. The conditions governing the kill of the standard should certainly not be so fixed in the vicinity of the maximum effectiveness of the product, but rather at an intermediate point, on either side of which the unknown will lie. In other words, if the laboratory standard is known, under given conditions, to induce a kill between 50 and 60%, inferior materials will be found to yield kills below this point, whereas superior products will lie between 60 and 100%. The conditions governing the use of a standard should not be set to give a kill of 90%, as it will be found difficult to secure higher test results using these same test conditions with an unknown, even though said unknown is superior to the standard in killing power. This situation can be governed by the quantity of insecticide used in the test and the length of time which the test insects are subjected to the pyrethrum saturated atmosphere.

In a slight modification of the test used by Peet and Grady, in which the flies have been liberated in the chamber following the introduction of the insecticide, a maximum variation in ultimate mortality has been secured of 29.56%. A similar series in which the flies were sprayed directly yielded a variation of 41.36%. These figures were secured in 16 individual tests conducted in both ways, in which approximately 1,700 flies were used. As would be expected, the mortality was appreciably higher with the direct application assuming an average of 73.5%, whereas by the indirect method 52.4% were killed. A ten minute exposure and 10 cc. of material was employed in making this comparison. Such results are not always secured, but over a considerable number of tests we have obtained results which are a trifle more consistent in the indirect method. This we believe to be associated with the heavy dosage frequently administered to flies when given a direct charge of spray, which is not always duplicated in subsequent tests conducted in this manner.

In a number of experiments to determine the number of flies best suited for a test, we have found that several hundred can be employed as readily as one hundred, within certain limits. Our figures on mortality in this study show no appreciable difference, between the two series of tests, except when a sufficient quantity of insecticide was employed to leave a residual film upon the floor of the test chamber. When a quantity in excess of ten cc. was used, together with a large number of flies (300-600) a higher mortality was obtained than when 100 flies were used under the same stipulated conditions. This is doubtless due to the flies remaining in contact with the film of insecticide upon the floor of the chamber, for a greater period of time than that normally incurred when a smaller number are used per individual test.

That the actual killing power of pyrethrum extracts is not clearly appreciated is evident from the various recommendations as to quantity of liquid used and duration of the insects' exposure to such treated atmosphere. These differences appear not only in suggested laboratory procedure, but also in the general recommendations which accompany these insecticides as they are marketed. Reverting to a statement which we have already made, it appears that maximum results in mortality are secured largely when the test chamber or the test room is given a thorough application of material which yields a mist of fog. A concentrated extract of as high as three pounds to the gallon does not give any more satisfactory kill when used at 20 cc. per 1,000 cubic feet than an extract of 1 pound to the gallon when used at 35 cc. per 1,000 cubic feet.

Over a long series of tests conducted with varying quantities of spray material the increase in mortality is not directly proportional to increases in the liquid used; and similarly varying the length of the period of exposure does not yield mortality results which are in proportion to such increases. These tests were made using quantities of from 3½ to 15 cc. of a standard extract to a chamber, similar to that employed by Dr. Peet, containing 216 cubic feet, with an exposure of ten minutes. It has been our experience with these tests that doubling the quantity of liquid increases the mortality roughly 20%, whereas tripling the quantity only increases the kill by 30%.

As regards increasing the period of exposure, starting at ten minutes, an additional

(*Turn to Page* 131)

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Analysis of Disinfectants

By Leslie Hart*

Food & Drug Administration, St. Louis Station

I WISH to express my appreciation of the opportunity given to discuss the Food, Drug and Insecticide Administration methods of chemical analysis used on your products. Knowing our testing methods, you will of course be better able to confirm our results, and by using them, you will be able to standardize your products on the same basis as we analyze them. You are more interested in coal tar and pine oil disinfectants than in other lines, and I will devote my time to a discussion of the chemical analysis of these products. I will, therefore, first give the Administration method of analysis of emulsifying coal tar disinfectants.

These products consist of crude carbolic oils, rosin or fatty soaps and water; the water being the only inert ingredient, unless mineral oil—which is sometimes added as an adulterant—is present. If your label states the amount of water present, as is usually the case, in order to comply with the Insecticide Act, the determination of the water content is the only one required for routine tests.

Water: A 25 to 50 gram sample, depending on the water content, is weighed into a 300-500 c.c. flask and 50 to 75 c.c. of xylene added. To prevent foaming any one of the following reagents should be added: (a) 10 grams of lump rosin, (b) 5 c.c. oleic acid, (c) 3 to 5 grams of anhydrous sodium bisulphate. (I personally prefer oleic acid as the anti-foaming reagent.) Attach a perfectly clean Bidwell-Sterling receiver and an upright water-jacketed return condenser. Distill until no more water collects in the receiver. This point is reached when the upper (xylene) layer in the receiver shows no cloudiness. Allow the contents of the tube to reach room temperature, read the volume of water under the xylene layer, and from this volume calculate the percentage of water in the sample.

Alkalies: Weigh about 10 grams of the sample into a platinum or silica dish. Cautiously boil off the water over a low flame, then ignite until the mixture is thoroughly charred. Leach out with hot water and filter. Completely ash the filter and residue, take up with water, filter and wash. Titrate the combined filtrates with 1/10 normal sulfuric acid, using methyl orange as an indicator. Make a qualitative flame test for sodium and potassium. If it is evident that one or the other largely predominates calculate the percentage of alkali to sodium or potassium oxide, as the case may be. If both sodium and potassium are present, the potassium may be determined by any of the chlorplatinate methods described in analytical texts, and the sodium calculated by difference.

Phenols; Neutral Oils and Fatty or Rosin Acids: Weigh approximately 20 grams of sample into a 125 cc. Squibb funnel. Add about 40 cc. of ether and 40 cc. of water and shake the mixture. If the mixture does not separate into two layers on standing, add a little 25% sodium hydroxide solution and shake again. It will then usually separate into two layers. Run the lower layer into another Squibb funnel and wash twice more with ether. Treat the upper layer twice with a mixture of 25% sodium hydroxide solution and water (about 30 cc. of 25% NaOH in all) and then finally with water. Wash the alkaline and aqueous extracts in turn with the same ether used in washing the first aqueous extract. Combine the ether extracts and washings, carefully distill the ether on the water bath and weigh the residue as neutral oils.

Combine the alkaline and water extracts obtained above, acidify with sulfuric acid (1-4) and steam-distill until no more phenols come over (test with ferric chloride solution). Saturate the distillate with salt and extract three times with ether. Carefully evaporate the ether and weigh the residue as phenols. (In case of large amounts of phenols, they may be extracted from the ether above with 25% sodium hydroxide, the aqueous solution heated to expel ether, and then the phenols thrown out with sulfuric acid (1-4) and measured. The weight of phenol should be considered as 1.05 times the volume. For accurate work, corrections must be made for the water in the phenols and for the phenols in the acidified solution of sodium sulphate.)

Extract the residue in the distilling flask

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with ether, evaporate the ether and weigh the residue as fatty or rosin acids (or a mixture of fatty and rosin acids). Multiply this weight by 0.97 to obtain the weight of fatty and rosin anhydrides. The rosin acids in the mixed acids may be determined by the method of Wolf (J. Ind. Eng. Chem., Vol. 14, p. 1161 (1927).)

The principal difficulty in the method for the neutral oils is that it is hard to evaporate all of the ether without losing some of the neutral oil. This is especially true if they contain any considerable proportion of the lower boiling fractions. In practice it is often found advisable to remove the last traces of ether by blowing a current of air on the oil after removing it from the steam bath. An experienced analyst can get quite accurate results on most samples with this method, however, in spite of its difficulty.

The same difficulty in regard to evaporating ether occurs in the method for determining phenols. In addition the phenols have a tendency to hold water so that the phenolic residue remaining after the distillation of the ether may contain as much as ten per cent of water. Usually the two errors counterbalance each other to a considerable extent.

The method given for phenols will not include all of the very high boiling phenols. Ordinary coal tar creosotes contain very little of these compounds. However, if your product is made from blast furnace tars and tars produced by low temperature carbonization of coal, it is likely to contain an appreciable quantity of these high-boiling phenols. If such is the case, they may be determined by Taylor's Method: (Jour. A. O. A. C., Vol. 11, p. 222, 1928.)

Mineral Oils: Mineral oil is sometimes found in coal tar oils as an adulterant and, therefore, in disinfectants made from such oils. A fair estimate of its percentage may be made from the percentage of unsulfonated residue obtained from the oil. The average creosote oil will give from 1% to 2% unsulfonated residue, and as high as 6% residue has been obtained from certain distillates. This fact must be taken into account in testing for mineral oil adulterants.

Determination of Mineral Oil in Creosote Oil: 38N sulfuric acid is needed for this determination, and may be prepared by mixing 2 parts by weight of fuming sulfuric acid with 3 parts of concentrated acid. The exact strength of this mixture and of a reserve supply of the concentrated acid is determined, and sufficient concentrated acid is added to the fuming mixture to bring it to 38N strength (82.38% SO_3). This must not vary more than 0.1% and should be kept carefully protected from the air. With a pipette measure 5 cc. of the extracted neutral oils into a 30% Babcock cream bottle. Add slowly 20 cc. of 38 N sulfuric acid, gently shaking the bottle and taking care that the temperature does not rise above 60° C. Agitate the mixture thoroughly, place in a water-bath at 60 to 65° C. for ten minutes, keeping the contents of the bottle thoroughly mixed by shaking vigorously for a period of 20 seconds at two minute intervals. Remove the bottle from the bath, cool, and fill with concentrated sulfuric acid until the oil rises into the graduated neck. Centrifugalize for five minutes at 1,200 r.p.m. or allow to stand, loosely stoppered, over night. Read the volume of unsulphonated residue on the neck of the bottle. To convert to per cent by volume, multiply the reading in Babcock degrees by four, each Babcock degree being equivalent to 0.2 cc.

Analysis of Liquor Cresolis Compositus: The Administration uses the method described in the U. S. Pharmacopoeia, X edition, in the determination of cresol, with the exception that 5 grams of anhydrous copper sulfate is substituted for the potassium carbonate as a drying agent. (Jour. Amer. Pharm. Assoc., V. 15, No. 3, p. 196, March, 1926.)

Water: Determine by xylene distillation method described above using 50 gram sample.

Unsaponified Material and Fatty Acids: Separate soaps and neutral (and unsaponified) oils by ether extraction, as described in the analysis of neutral oils and fatty acids—emulsifying disinfectants. A 20 gram sample should be used. The U. S. Pharmacopoeia requires linseed oil in the preparation of Liquor Cresolis. This may be most readily identified by determining the iodine number of the fatty acids, as described in Methods of Analysis A. O. A. C., 2nd edition, p. 286.

Total Alkali: Determine as described under emulsifying disinfectants, using a 5 gram sample.

Glycerin: This substance is an inert ingredient in Liquor Cresolis Compositus. It may be determined as follows: Dissolve a 20 gram sample in 50 cc. of water and add the volume of normal sulfuric acid solution which will exactly neutralize the total alkali in the sample. This volume may be calculated from the results of the determination of total alkali. Extract three times with petroleum ether, washing the ether three times with water. Combine the aqueous portions and evaporate on the steam-bath to a syrupy consistency. Take up with absolute alcohol, warm and filter. Repeat the evaporation and extraction with

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BROOKLYN, N. Y.

Say you saw it in SOAP!

alcohol, and subsequent filtration. Evaporate the alcohol and if the residue shows traces of tarry material, wash once with 5 cc. of anhydrous ether. Evaporate traces of ether, dry for 1 hour at 100° C., and weigh. Ignite the residue, weigh, and regard the loss of weight as glycerin. This method is convenient and rapid but will give slightly low results. For accurate work one of the oxidation methods such as are described in text-books on the analysis of soap should be used.

Saponified Cresols: These are products simulating Liquor Cresolis Compositus but made from coal tar acids other than cresol, and from soaps other than linseed oil. They may be analyzed by the methods described under Liquor Cresolis Compositus.

Analysis of Pine Oil Emulsions. Water: Determine by the xylene method, as described under emulsifying disinfectants.

Pine Oil and Fatty (and Rosin) Acids: Separate the pine oil with ether as described in the method for determination of neutral oils described under analysis of emulsifying disinfectants, using about a 20 gram sample. Carefully evaporate the ether and weigh as pine oil. This is only approximate and should be used as a check. The percentage of pine oil should be reported by difference. The pine oil obtained above should be sulfonated as described under Mineral Oil in discussion of analysis of emulsifying disinfectants to determine if the pine oil is adulterated with mineral oil. The unsulfonated residue should not be over 3%. The aqueous layer is acidified and the fatty and rosin acids, extracted as described under fatty acids—emulsifying disinfectants.

◆

Disinfectants, deodorants, germicides, antiseptics, and similar preparations, amounting to 225,057 lbs., valued at $35,430, were exported from United States during March, 1930, as compared with 138,226 lbs., worth $20,060 for March, 1929. Exports of liquid insecticides amounted to 1,057,023 lbs., worth $321,996 in March, 1930, as compared with 594,879 lbs., valued at $175,000 in March, 1929. Exports of household insecticides and exterminators (powdered or paste) amounted to 28,990 lbs., valued at $11,324, for March, 1930, as compared with 32,051 lbs., worth $13,328, for March, 1929.

◆

N. J. DeLamar, export manager of McCormick & Co., Baltimore, recently returned from an extended business trip through South America where he was engaged in establishing new connections for his firm.

To Hold Mop Stick Conference

Manufacturers of mop sticks will hold a trade practice conference with the Federal Trade Commission in the near future to draw up rules for the elimination of unfair methods of competition in business. No date has been determined but it is likely the meeting will take place in Washington. The mop stick makers have about a dozen plants situated in such parts of the country as Illinois, Indiana, Ohio, Pennsylvania, New York, New Jersey and California. Applicants for the trade practice conference represent seventy per cent of the industry based on both production and numbers. Among trade practices to be taken up at the meeting are the following: Price discrimination, deception, imitation of trademarks, defamation of a competitor, inducing breach of contract, and deviation from standards.

◆

The assets and liabilities of Tar Products Corporation, Providence, R. I., were as follows at the end of 1929:—

ASSETS

Real estate	$48,945
Machinery	305,846
Merchandise	282,783
Furniture, fixtures, etc.	4,440
Autos and trucks, etc.	37,319
Notes receivable	6
Accounts receivable	193,845
Cash	79,814
Prepaid and suspended accounts	3,205
Charges	8,411
Total	$964,619

LIABILITIES

Capital stock (including only shares with par value)	$2,000
Accounts payable	419,149
Reserves for depreciation	177,621
Surplus	353,564
Reserve for taxes	12,284
Total	$964,619

◆

John D. Gillis, managing director of Graesser-Monsanto Chemical Works, Ltd., a subsidiary of Monsanto Chemical Works, St. Louis, died suddenly in London on June 24. He had been transferred to London early this year, and his wife and two sons had been in London only two weeks at the time of his death. They returned on the *Aquitania* June 28th, with the body for burial in Moorhead, Minn.

◆

J. A. Berninghaus, general manager of sales, located in the home office of Monsanto Chemical Works, St. Louis, and V. E. Williams, in charge of the Eastern district sales office, New York, were elected assistant vice-presidents by the Monsanto board of directors at the meeting of June 24th. They will continue in their respective capacities.

WITH ANY INSECTICIDE

ONLY THE KILLING POWER COUNTS!

WHETHER LIQUID OR POWDER—THE CONSUMER ASKS ONLY ONE THING—*WILL IT KILL THE INSECT?*

Every day brings a new theory with a scientific claim for the strength of some particular insecticide product. Theories are advanced that the strength is indicated by oleoresin content; by pyrethrin content, etc. We regard these as confusing. Several well known methods of determining Pyrethrin content are now in vogue; authorities, however, distinctly disagree upon a method that is reliable.

We Rely Finally Upon Killing Power!

Many flowers with high oleoresin or pyrethrin content vary greatly in results. The selection of full strength insect flowers—followed by tests for the insect killing strength (known as the physiological test) removes all doubt regarding quality.

The Product That Actually Kills The Insect — Is The One You Want

PYRETHRUM EXTRACT

(CONCENTRATED)

PYREFUME is a concentrated extract of selected, tested insect flowers, made in a strength of five times the accepted standard for fly and insect sprays.

By scientific methods, the full insecticidal value of the flowers is obtained.

PYREFUME is tested and is of **true high killing powder.**

Without the aid of machinery or apparatus—a standard fly spray may be immediately produced by the wholesaler or manufacturer, bearing a

WIDE MARGIN OF PROFIT

Packed in 55-Gallon Steel Drums

10 Gallon (2-5 gal. tins) Cases

Write for samples and further full information

ORDERS CAN BE EXECUTED IMMEDIATELY

PYRETHRUM POWDER

(INSECT FLOWERS)

FINE—FOR DUSTING
COARSE—FOR EXTRACTION

We are among the heaviest importers of flowers.

We test our importations—physiologically as well as chemically.

We grind exclusively in own own mills and can therefore guarantee purity.

We carry in stock five varieties of flowers, namely:

DALMATIAN (Closed)
DALMATIAN (Half-closed)
DALMATIAN (Open)
JAPANESE (Always half-closed)
TURKISH

ALL VARIETIES ARE TRUE TO TYPE

Protect your PYRETHRUM product by purchasing material that has been tested for definite killing power.

Packed in barrels, kegs and boxes.

Write for prices, spot or on contract

S. P. PENICK & COMPANY

LEADING CRUDE DRUG IMPORTERS AND MILLERS

Mills and Factory: **WEEHAWKEN, N. J.**

Offices: 115 Fulton St. NEW YORK, N. Y.

Mills and Warehouse: **ASHEVILLE, N. C.**

Say you saw it in SOAP!

Many of those in the disinfectant industry were shocked to hear of the death by suicide last month of Herbert G. Sidebottom, who was well known throughout the trade. Mr. Sidebottom was with the Barrett Company for some years and later a partner in Jayne & Sidebottom, New York.

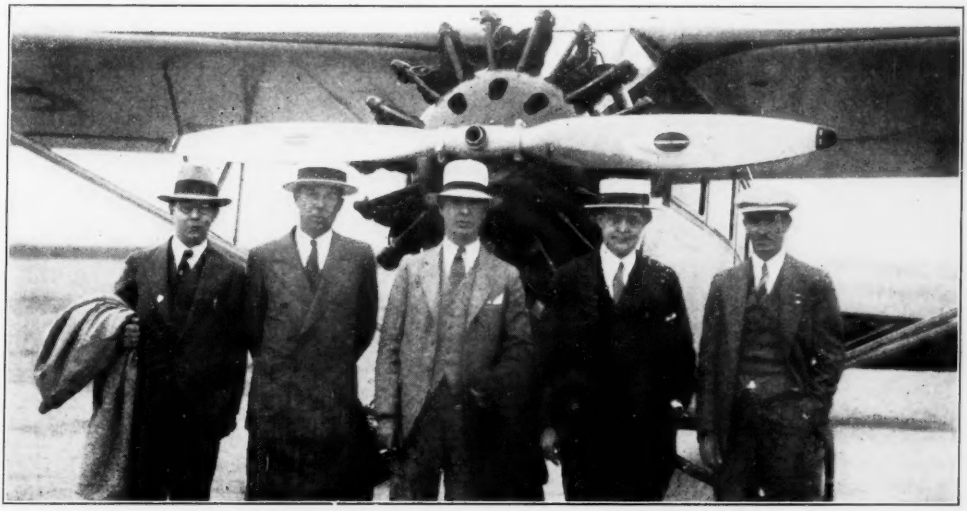
Deco Products Co., New York, for many years manufacturers and distributors of disinfectant and sanitary specialties through indirect channels, recently started a new policy of selling direct to consumers. They now offer a complete line of products which include disinfectants, scrubbing compounds, air-conditioners, moth cakes, liquid soap, rodent exterminators, insect sprays, soap dispensers and soap dispensing systems.

McCormick & Co., Inc., Baltimore, recently appointed Jordan Advertising Abroad, Inc., New York, to direct its export advertising.

Form British Disinfectant Assn.

At the inaugural meeting of the new British Disinfectant Manufacturers' Association held recently in London, England, N. F. Kingzett, of Sanitas Co., was chosen chairman of the group, with W. H. Hivey, of Taylor's Automatic Disinfector, Ltd., as vice-chairman, and R. A. Blair, of Burt, Boulton & Hayward, Ltd., as honorary treasurer. Representatives of fifty firms in the disinfectant industry attended the meeting, and signified their intention of joining the association. Its purpose is to foster the manufacture of British disinfectants and to promote closer cooperation between disinfectant makers. It will also be in a position to present the views of its members through the proper channels in connection with any legislative proposals which may arise.

F. U. Rapp has been appointed by Hercules Powder Co., Wilmington, as special representative of pine oil sales development work. The uses of pine oil have become so diversified and are developing so rapidly that it has become one of the major naval stores products of the Hercules Powder Co. Steam distilled pine oil of the Hercules Yarmor grade has a phenol coefficient of 4.75 to 5.0, according to C. E. Kinney, technical service manager of the naval stores department of the company.



Trade executives fly from Chicago to Cleveland. Henry Nelson, vice-president, Chemical Supply Co., Cleveland; George H. Scott, president, Scott & Fetzer Co., Cleveland; Ira P. Mac Nair of the staff of *Soap*; E. B. Loveland, advertising manager of Stanco, Inc., New York; W. B. (Bill) Atwell, well-known pilot for the *Cleveland News*; all arrive at the Cleveland Airport following the recent Chicago meeting of the Insecticide & Disinfectant Manufacturers Association. Photo courtesy *Cleveland News*.

D & B SUPERBILT

CHEMICAL SPRAYERS

DISTINCTLY ORIGINAL AND SUPERIOR

Nozzle Cap with Strainer

Set down for Pumping

No. 35

CAPACITY 3 QUARTS

A powerful Chemical Atomizer for Flies, Mosquitoes, Moths and Insects of all kinds.

Automatic lever nozzle, adjustable for light or heavy sprays without change of caps. Very high pressure is secured by setting sprayer down for pumping.

No. 10 D&B Superbilt Combination Chemical Sprayer

with Air Regulator and Volume Control

CAPACITY 1½ GALLONS

This is a powerful chemical atomizer in combination with an ordinary compressed air sprayer—produces the results of both with many variations in between.

The Air Regulator

A very important feature in this sprayer is the new patent air regulator. It is capable of a wide range in nozzle adjustment to make it produce a heavy spray, medium mist, or the very finest vapor fog. Works equally well with heavy or light oils or other spraying materials.

Write for catalog on our complete line.

The Dobbins Manufacturing Co.

North St. Paul, Minn.

Past Presidents Elected on Insecticide and Disinfectant Association Board

M. M. MARCUSE
West Disinfecting Co.

C. C. BAIRD
Baird & McGuire

FRED A. HOYT
Frederick Disinfectant Co.

H. W. HAMILTON
Koppers Products Co.

WITH the adoption at the recent Chicago meeting of the Insecticide & Disinfectant Manufacturers Association of a resolution changing the constitution and by-laws, five former presidents of the organization were automatically elected permanent members of the Board of Governors. These included M. M. Marcuse of the West Disinfecting Co., New York; C. C. Baird of Baird & McGuire, Inc., Holbrook, Mass.; Fred A. Hoyt of the Frederick Disinfectant Co., Atlanta, Ga.; H. W. Hamilton of the Koppers Products Co., Pittsburgh. H. W. Cole, secretary of the Association, as a past president, is also eligible under the new rule to be chosen automatically on the Board, but he is already a member in view of his office as secretary, and the new ruling does not affect his status. C. C. Baird, at present an elected member of the Board, becomes a permanent member, and an elected member will probably be chosen at the next meeting in December to take his place in the elective group.

The change in the by-laws as adopted changed the personnel of the Board of Governors of the Association by adding in addition to the regularly elected members of the Board and the officers of the Association, all past presidents of the Association whose companies were still active members of the Association, to be permanent members. The object of the change is to keep close to the governing board of the Association the experience and knowledge of the men who have served as president in the past.

R. H. White, of Koppers Research & Products Co., was one of those present at the annual meeting of committee D-1 of the American Society for Testing Materials, at Haddon-Hall Hotel, Atlantic City, June 26. Among the speakers in the symposium on rosin was R. C. Roark who spoke on *Rosin in Disinfectants*. An informal discussion of rosin in soap was also held.

◆

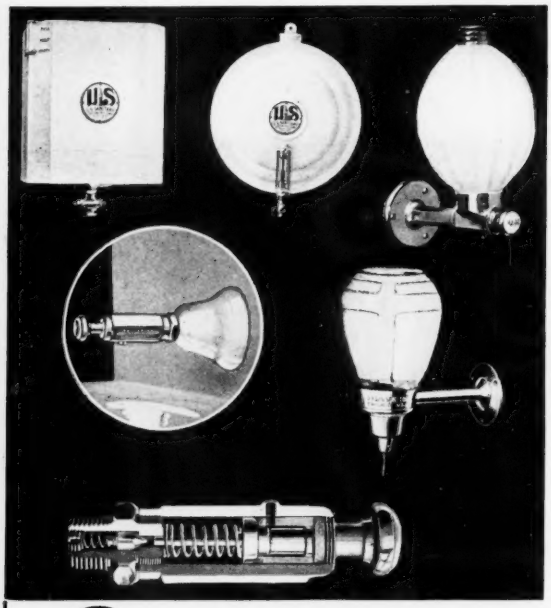
Lehn & Fink, Inc., Bloomfield, N. J., recently started a $50,000 advertising campaign appealing to the buying public to refuse to patronize price cutters. A plan is suggested to retailers whereby they can maintain standard prices on their goods. Lehn & Fink are makers of Pebeco tooth paste, Hinds Honey and Almond Cream and Lysol disinfectant.

◆

In the reorganization of International Combustion Engineering Corp., now in the hands of a receiver, it is expected that 50,000 new shares of preferred stock will be issued, holders of the old stock to get one new share for each two old ones. New common stock will also be issued, on the basis of one and one-half new shares in exchange for each old share. The issue will be underwritten by Guaranty Co., New York, at $80 a share on the preferred and $20 on the common.

◆

A patented insecticide comprises chlorinated kerosene preferably mixed with terpenes such as turpentine. Phenol may be added if desired.—*Fr. Pat. No.* 662,256.



SOAPERIOR FOOL-PROOF EQUIPMENT THAT SELLS AND BUILDS GOOD-WILL!

Profits and repeat orders in selling SOAPERIOR LIQUID SOAP EQUIPMENT . . . Gravity Feed Type adequate for all requirements, consisting of exposed fool-proof Hexagon Valves (cross-section shown) and handsome tanks (several types illustrated) installed at elevation and serving any number of basins.

Also four types of popular fast-selling Individual Dispensers (two illustrated) . . . models built for heavy duty . . . others priced so low you can give them away to your trade with soap orders.

Glad to quote. Send for new illustrated catalog

U. S. SANITARY SPECIALTIES CORP'N
435-41 So. Western Ave. Chicago, Illinois

Write! Phone! Wire!

AT OUR EXPENSE FOR PRICES OF

PYTHREX

Our Concentrated Pyrethrum Extract

For Fly Spray, Cattle Spray, Moth Spray and other Insecticides Formulæ Furnished Gratis!

PYTHREX is made of the finest available material
We absolutely guarantee its effectiveness.

SPOT SHIPMENT OF ANY QUANTITY.

GET OUR PRICE BEFORE YOU BUY.

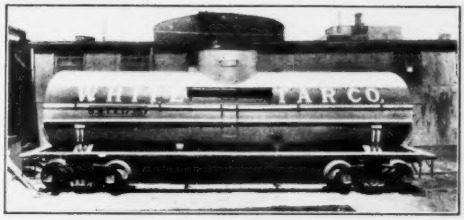
THE CINO CHEMICAL PRODUCTS CO.

208-10 MAIN ST., CINCINNATI, O.

Say you saw it in SOAP!

Exports of metal and stove polishes from United States during the month of April, 1930, totaled 143,772 lbs., worth $21,439, as compared with 188,664 lbs., valued at $25,755, during the same month in the previous year. Shoe polish to the amount of 204,481 lbs., worth $64,986, was exported during April, 1930, as against shipments of 235,165 lbs., worth $72,532, during April, 1929. Exports of leather dressings and stains in April, 1930, totaled 191,318 lbs., worth $39,391, as compared with 148,269 lbs., valued at $30,349, in the same month of 1929. Floor wax, wood and furniture polishes to the amount of 104,541 lbs., worth $22,924, were exported in April, 1930, while exports in April, 1929, were 112,936 lbs., valued at $27,798. Automobile polish exports in April, 1930, totaled 113,318 lbs., worth $27,754, as against 68,036 lbs., valued at $15,877 in April, 1929.

Hercules Powder Co., Wilmington, recently issued a four-page folder describing the uses of Hercules wood rosin. Hercules I wood rosin is said to be clean, free from dirt and uniform in quality. Laundry soap made with this rosin is called satisfactory for both home and community laundries.



New design of tank car now being used by White Tar Co., Kearny, N. J., for shipping disinfectants. The body of the car is painted aluminum with a dark stripe.

Exports of liquid insecticides from United States totaled 1,567,424 lbs., valued at $427,636, during the month of February, 1930, as against 488,144 lbs., worth $182,283, during the same month in 1929. The largest buyer in February, 1930, was United Kingdom, taking 271,467 lbs. for $83,135. Exports of powdered and paste insecticides amounted to 40,917 lbs., worth $13,138, in February, 1930, with exports of disinfectants, deodorants, germicides, and antiseptics totaling 167,427 lbs., worth $21,702.

Exports of toilet preparations and fancy soaps from United States to Bolivia increased from $13,000 in 1927, to $18,000 in 1928 and $30,000 in 1929.

The SPRAYER Comes FIRST

It makes no difference how effective the insecticide or repellant may be, it MUST be correctly applied if the results are to be the BEST. The better the sprayer, the better the customer will like the product. That is the rule.

ACME Makes Sprayers to Fit Every Requirement

Over fifty years in the business has eliminated all risk and experiment in ACME products. The very height of perfection has been attained. Every sprayer carries a money-back guarantee of satisfaction. If it isn't in our regular line, we can build a sprayer to fit YOUR needs.

Our No. 200 sprayer is a leader. Special drip cup feature; air and spray tubes coordinated to produce a mist or fog that hangs in the air longer; special processed leather plunger, etc., etc. Tell us your needs. Write for samples and prices.

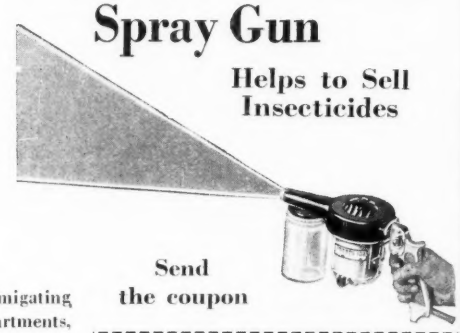
POTATO IMPLEMENT COMPANY, Dept. 34
TRAVERSE CITY, MICHIGAN

The Dead-Line

for Bugs— Insects—Germs

Presto 102 Electric Spray Gun

Helps to Sell Insecticides



Insecticides, germicides, disinfectants, kerosene, fly and moth killing liquids can be sprayed a distance of ten feet with the Presto 102.

And the fine, penetrating mist, spells death for bugs, insects and germs—buried deep in velvety cushions or hidden beneath flower petals.

The Presto 102 is used for disinfecting and fumigating hospitals, hotels, apartments, public institutions, poultry houses and dairy farms. It is a highly efficient tool for spraying insecticides on flowers, rose bushes, shrubs and plants. And it is the most deadly enemy of moths, which destroy many dollars' worth of garments, furs and upholstered furniture every year.

Send the coupon

MAIL TO
METAL SPECIALTIES MFG. CO.
338-352 N. KEDZIE AVENUE
CHICAGO, ILL.

Please send me the special folder on the Presto 102.

Name .....

Address .....

City..... State.....
S 7

A low cost

DISINFECTANT

and coal tar dip

A pure undiluted creosote oil disinfectant free from mineral oil and other adulterants, for those who are limited in the price they can pay.

Write us for a sample of Disinfectant No. 2.

LIQUID INSECTICIDE

100 per cent active

light lemon color — absolutely stainless
safe and non-explosive — sure death to household insects

Ask us for a sample to test yourself.

For 33 years, Chemical Supply Co. has specialized in supplying the jobbing and wholesale trades only with standard disinfectants, insecticides, liquid soaps, polishes, cleaning compounds and other sanitary products. A dependable house to deal with. Send for a copy of booklet, "Chemical Specialties," giving full details about our products and our service for the jobber.

CHEMICAL SUPPLY CO.

Established 1898

2450 Canal Road **Cleveland, Ohio**

Say you saw it in SOAP!

Chicago Registration

Those who registered at the Chicago meeting of the Insecticide & Disinfectant Manufacturers Association last month included the following:

Evans E. A. Stone, William Peterman, Inc., New York City.
S. G. Scott, Williams Sealing Corporation, Chicago.
R. V. Bradley, Williams Sealing Corpn., New York.
E. B. Mower, Tin Decorating Co., Baltimore, Md.
Dr. Robert C. White, Robert C. White Co., Philadelphia.
Fred A. Hoyt, Frederick Disinfectant Co., Atlanta, Ga.
W. A. Hadfield, General Laboratories, Madison, Wisconsin.
C. P. McCormick, McCormick & Co., Baltimore, Md.
Ellis MacFarland, Chicago Association of Commerce.
Burton G. Philbrick, Skinner, Sherman & Esselen, Boston, Mass.
Wallace Thomas, Gulf Refining Co., Pittsburgh.
F. C. Nelson, Standard Oil Co., Elizabeth, N. J.
Dr. Emil Klarmann, Lehn & Fink Products Co., Bloomfield, N. J.
C. C. Baird, Baird & McGuire, Inc., Holbrook, Mass.
John Powell, John Powell & Co., New York City.
H. W. Hamilton, Koppers Products Co., Pittsburgh.
K. A. Dolge, C. B. Dolge Co., Westport, Conn.
Dr. A. Weed, John Powell & Co., New York.
Ira P. MacNair, MacNair-Dorland Co., New York.
Grant A. Dorland, MacNair-Dorland Co., New York.
S. H. Bell, Koppers Products Co., Pittsburgh.
Peter Dougan, Merck & Co., Inc., Rahway, N. J.
Dr. A. G. Grady, Sinclair Refining Co., Chicago.
Robert J. Jordan, Wm. E. Jordan & Bro., Brooklyn, N. Y.
L. C. Himebaugh, Pease Laboratories, New York.
N. J. Gothard, Sinclair Refining Co., Chicago.
F. J. Solon, Owens-Illinois Glass Co., Toledo, Ohio.
Preston B. Heller, B. Heller & Co., Chicago.
W. J. Andree, Sinclair Refining Co., New York.
Arthur O. Ponder, Dominion Tar & Chem. Co., Montreal, Canada.
R. E. Sturhahn, Monsanto Chemical Works, St. Louis.
J. H. Carpenter, Koppers Products Co., Pittsburgh, Penna.
William Castonguay, Edgar A. Murray Co., Detroit, Mich.
C. W. Manville, Shell Petroleum Corporation, St. Louis, Mo.
G. E. Walk, Shell Petroleum Corporation, St. Louis, Mo.
Dr. N. J. G. Alozery, Shell Petroleum Corporation, St. Louis, Mo.
L. J. Freundt, American Can Co., Chicago.
H. A. Pinney, American Can Co., Chicago.
David P. Lewis, H. D. Hudson Mfg. Co., Chicago.
H. A. Suddard, American Cyanamid Co., at Chicago.
S. Carle Cooling, Metal Package Corpn., Baltimore, Md.
J. G. Durno, Chicago Chemical Co., Chicago.
L. J. LaCava, Continental Can Co., New York.
E. B. Loveland, Stanco, Inc., New York.
C. Hermann, Clean Home Products Corpn., Chicago.
H. R. Wesley, Clean Home Products Corpn., Chicago.
J. H. McGuire, Tar Products Corpn., Providence, R. I.
Dr. Charles H. Peet, Rohm & Haas Co., Inc., Bristol, Penna.
J. L. Brenn, Huntington Laboratories, Inc., Huntington, Indiana.
R. B. Stoddard, van Ameringen-Haebler, Inc., New York City.
Edgar A. Murray Edgar A. Murray Co., Detroit, Michigan.

VOGEL

Insecticide Sprayer

A substantially constructed sprayer that will stand up under hard usage, priced at a remarkably low figure.

Hand and continuous sprayers, designed and manufactured to give the greatest value for the least outlay.

Also Manufacturers of

Shaker Top Cans
for paradichlorbenzene crystals

Plain or Decorated
Tin Cans
for Pastes, Soft Soaps, Dry and Liquid Insecticides.

Holders for Deodorizing Blocks

Write us about your requirements and we will gladly submit samples and prices without any obligation on your part.

William Vogel & Bros.
Incorporated
"IN BUSINESS OVER 50 YEARS"
37-47 SOUTH 9th STREET
Brooklyn, N. Y.

MORTEX PRODUCTS

in bulk to the trade!

M

Mortex Theatre Spray

MORTEX Theatre Spray comes in eight different odors, all popular in character and possessing a sweetness rivaled only in the finest French perfumes. The odors last. Since Mortex Theatre Spray contains material heavier than air it replaces foul air and purifies the atmosphere when sprayed in the theatre. This product is not injurious to furniture.

Mortex Disinfectant

We supply Mortex Disinfectant in concentrated bulk form. You can handle this product on a very profitable basis and will find that it will be a good repeater.

Mortex Insecticide

MORTEX Insecticide is supplied to you in bulk and in concentrated form to save shipping costs. This product has real killing power and is priced right.

Let us send you generous samples of these exceptional sanitary products. Jobbers all over the country are handling MORTEX PRODUCTS profitably.

MORTEX PRODUCTS COMPANY, INC.

247 EAST ILLINOIS STREET CHICAGO

TAR ACID OIL

20% 25% 30% 36%

Naphthalene Free — White Emulsion

SPECIAL OILS
for making DISINFECTANTS complying in
BENZOPHENOL CONTENT
with the
FEDERAL CAUSTIC POISONS ACT

THE DOMINION TAR & CHEMICAL CO.
LIMITED
424 CANADA CEMENT BUILDING
MONTREAL, QUEBEC

Say you saw it in SOAP!

M. C. Goodrich, H. D. Hudson Mfg. Co., Chicago.
Dr. John Glassford, McCormick & Co., Inc., Baltimore, Md.
J. A. Cavanaugh, Dow Chemical Co., Midland, Michigan.
Henry A. Nelson, Chemical Supply Co., Cleveland.
W. R. Heyer, Drug Topics, Chicago.
W. E. Lape, Wm. Cooper & Nephews, Chicago.
J. Edward Wehmer, Newport Chemical Works, Inc., Chicago.
Lou Blickman, Metal Package Corpn., New York City, N. Y.
Dr. Eric C. Kunz, Givaudan-Delawanna, Inc., New York City.
V. W. Mider, U. S. Chemical Co., Greenville, Ohio.
E. M. Tysdale, Ungerer & Co., St. Louis, Mo.
Henry S. Webber, Heyden Chemical Co., Chicago.
J. A. Conner, O'Cedar Corporation, Chicago.
F. J. Pollnow, Vestal Chemical Co., St. Louis, Mo.
F. U. Rapp, Hercules Powder Co., Wilmington Delaware.
B. H. Little, Hercules Powder Co., Wilmington, Del.
Elmer Hirschberg, Huntington Laboratories, Huntington, Ind.
Robert L. Tripp, The White Tar Co., Chicago.
A. A. Breuer, Breuer Electric Mfg. Co., Chicago, Ill.
A. E. Paul, Central District, Food, Drug & Insecticide Admn., United States Department of Agriculture, Chicago.
Dr. J. N. Roche, Koppers Products Co., Pittsburgh.
A. Srebren, A. Srebren Co., Chicago.
Harry J. Ahles, John Powell & Co., Chicago.
Henry Barroll, Henry Barroll & Co., Inc., Chicago.
C. B. Cadwallader, American Can Co., Chicago.
R. O. Jackson, West Disinfecting Co., Chicago.
C. W. Streckenbach, Hudson Mfg. Co., Chicago.
R. E. Streckenbach, H. D. Hudson Mfg. Co., Chicago.
Frank T. Robinson, Monsanto Chemical Works, Chicago.
S. L. Buschman, President, Metal Package Corpn., New York.
C. M. Black, S. B. Penick & Co., Inc., Chicago.
Elon G. Borton, LaSalle Extension University, Chicago.
J. J. Hogarty, Tin Decorating Co., Chicago.
E. W. Piper, Rochester Germicide Co., Chicago, Ill.
Martin B. Vance, Givaudan-Delawanna, Inc., Chicago.
Dudley F. Lum, Givaudan-Delawanna, Inc., Chicago.
W. S. Burgess, Burgess Chemical Co., Benton Harbor, Michigan.
E. F. Curda, International Comb. Tar & Chem. Co., Chicago, Ill.
H. J. Schulte, International Comb. Tar & Chem. Co., Chicago.
Harry W. Cole, Baird & McGuire, Inc., Holbrook, Mass.

Names of all those who failed to sign the registration book are naturally not included.—Harry W. Cole, Secretary, Insecticide & Disinfectant Mfrs. Assn.

Exports of metal and stove polishes from United States during February, 1930, totaled 96,018 lbs., worth $14,274, with additional exports of 188,464 lbs. of shoe polishes, worth $57,725, and 92,975 lbs. of leather dressings valued at $22,511. Exports of floor wood, wax and furniture polishes during the same month amounted to 91,158 lbs., worth $20,007, while automobile polish exports totaled 104,778 lbs., worth $26,909.

SOAP

AS PIONEERS in the development of quality soaps, oils and allied products, we take pride in their enviable reputation for *high quality, constant uniformity* and *absolute dependability.*

Fifty-three years' experience in the manufacture of these products is the background upon which they are offered to you and your trade. Whatever your requirements may be, we are prepared to meet them to entire satisfaction.

AUTOMOBILE SOAPS
INDUSTRIAL SOAPS
PINE OIL CLEANERS
COCOANUT OIL BASE
LIQUID TOILET SOAPS
LIQUID SHAMPOO SOAPS
LIQUID SHAMPOO BASE

Our chemists, skilled in the art of soap making, are trained to meet the most exacting specifications. Every piece of merchandise is laboratory tested before it leaves the plant. This is your safeguard. Packed under your own private label.

Manufacturers to the Jobbing Trade

The BROOKS OIL CO.
CLEVELAND, OHIO

The Fly Spray Season is Here!

MANY consumers object to using a fly spray possessing a medicine-like odor—use:—

BOUQUET 77 or BLEND 7

and impart a desirable lilac odor to your spray.

Each blends in perfectly with petroleum distillate.

Samples and Prices Upon Request

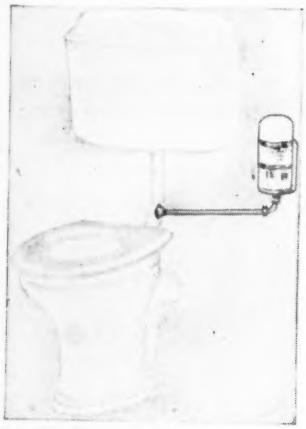
Member

INSECTICIDE AND DISINFECTANT MANUFACTURERS ASSOCIATION I&D MA

P. R. DREYER INC.

26 CLIFF STREET NEW YORK, N Y.

The UNI-HYGEA
AUTOMATIC DISINFECTOR



Odors originate in the trap of the toilet or urinal and there is the place to kill them—before they have a chance to exist.

COMBATS OBNOXIOUS ODORS, CLEANS the BOWL, and DISINFECTS,

and ALL in ONE OPERATION

How? With each flush, approximately 8 ozs. of water enters the instrument, where it mixes with a portion of the concentrated disinfecting fluid, forming a perfect emulsion. The mixture is discharged AFTER the flush into the bowl where it remains until the next flush. It cleans—It deodorizes—It disinfects.

DISTRIBUTORS—Secure the valuable UNI-HYGEA rental service franchise for your territory. Thousands of stores, theatres, hotels, factories want UNI-HYGEA instruments installed on a yearly service contract basis that will bring huge profits to you, besides giving you a decided advantage over competition in merchandising your regular line—Investigate.

The Uni-Hygea Automatic Disinfector Co.
3560 St. Aubin Avenue Detroit, Mich.

Trade Marks Granted

(*From Page 63*)

Filed Dec. 28, 1929. Serial No. 294,167. Published March 18, 1930. Class 4.

271,382. Soaps, Metal Polish, and Cleaning Preparations. North American Polish Co., Cleveland. Filed May 24, 1928. Serial No. 266,946. Published March 18, 1930. Class 4.

271,400. Soap Powder. G. C. Taylor Co., Fairport, N. Y. Filed Sept. 3, 1929. Serial No. 289,305. Published March 18, 1930. Class 4.

271,401. Polish. Frands Sales Agency, Chicago. Filed July 22, 1929. Serial No. 287,440. Published March 11, 1930. Class 16.

271,434. Soap. Colgate-Palmolive-Peet Co., Chicago. Filed Nov. 16, 1929. Serial No. 292,486. Published March 25, 1930. Class 4.

271,496. Liquid Insecticide. Kilsem Manufacturing Co., Baltimore. Filed Feb. 5, 1930. Serial No. 295,623. Published March 25, 1930. Class 6.

271,510. Insecticides. Millwood Co., Overland, Mo. Filed Aug. 10, 1929. Serial No. 288,382. Published Oct. 8, 1929. Class 6.

271,570. Insecticides, Deodorants, Disinfectants. Stanco Inc., Wilmington and New York. Filed Oct. 3, 1929. Serial No. 290,628. Published March 18, 1930. Class 6.

271,634. Polishing Wax. Gilbert Spruance Co., Philadelphia. Filed Jan. 24, 1930 Serial No. 295,156. Published Apr. 1, 1930. Class 16.

271,638. Liquid Wax Polish, Furniture Polish and Waxless Polish. E. E. Fulton Co., Chicago. Filed Jan. 20, 1930. Serial No. 294,967. Published Apr. 1, 1930. Class 16.

271,738. Moth and Insect Repellants. Lynch-Cross Corp., Milwaukee. Filed Feb. 21, 1930. Serial No. 296,353. Published Apr. 1, 1930. Class 6.

271,851. Laundry Sours. Crescent Chemical Corp., Philadelphia. Filed Dec. 22, 1928. Serial No. 277,104. Published March 5, 1929. Class 6.

271,862. Dentifrice. Cutino Co., Kansas City. Filed Sept. 6, 1929. Serial No. 289,391. Published Dec. 17, 1929. Class 6.

U. S. Sanitary Specialties Corp., Chicago, recently issued a folder describing Aerzonator blocs, Bowlclean liquid and Clenopine disinfectant, three sanitary products manufactured by the company.

DISINFECTANT manufacturers

look over the Por-Pail

see why your product should be in it

The pouring perfection of this drum and its possibilities for permanent advertising make it just the type of steel shipping container for liquid disinfectants.

The Por-Pail may be filled thru either the full head or the spout opening. It ships absolutely liquid-tight with its spout hanging inside. To use it is only necessary to take out the rigid, tubular spout, screw onto the nozzle and release the screw vent. The Por-Pail pours fast, smooth and accurate without gushing and splashing.

When emptied the crimp cover is pried off, making a steel bucket for permanent utility. Since the pail is never thrown away, your lithographed label is always before customers and prospects. This means free, continuous advertising.

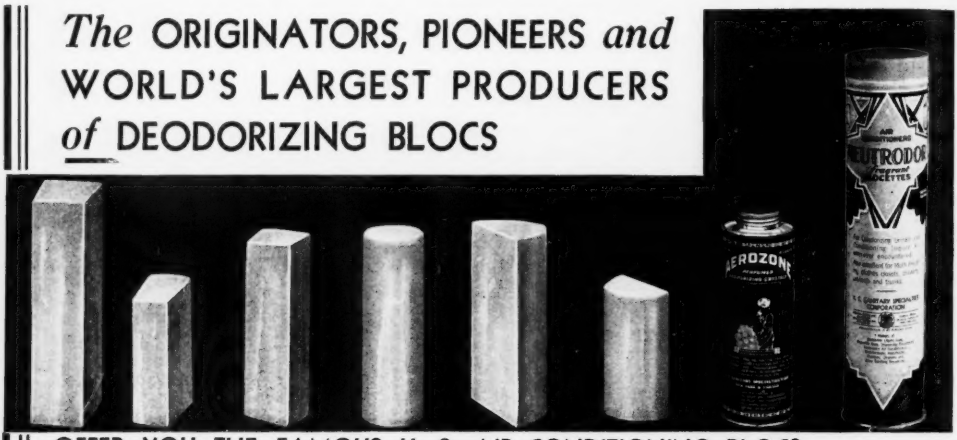
Let us send you a sample.

WILSON & BENNETT MFG. CO.

6536 S. Menard Ave. CHICAGO

39 Cortlandt St. NEW YORK

The ORIGINATORS, PIONEERS *and* WORLD'S LARGEST PRODUCERS *of* DEODORIZING BLOCS



OFFER YOU THE FAMOUS U. S. AIR CONDITIONING BLOCS *under your private label*

U. S. AIR CONDITIONING BLOCS outsell all other blocs because they are moulded, hard and uniformly perfumed. Sizes and shapes (as illustrated) to fit any containers. Odors to meet current needs. Packed for you under your private label.

Handsome perforated metal containers in White Enamel, Porcelain, Oxidized or Nickel-plate with Jobber's Nameplate.

Also NEUTRODOR URINAL BLOCETTES and AEROZONE CRYSTALS packed in beautiful lithographed tins with your imprint.

Large output makes it possible to quote extremely low prices. New catalog on request.

U. S. SANITARY SPECIALTIES CORPORATION
435-41 SO. WESTERN AVENUE CHICAGO, ILL.

U.S. SANITARY SPECIALTIES CORP. NEW YORK & CHICAGO

Makers of
Liquid Soap Equipment
Liquid Toilet Soaps
Insecticides
Disinfectants, etc.

"EVERGREEN" PERFUMES *for* Soaps, Sprays, Deodorants, etc.

"EVERGREEN" concentrated oils for cake soaps, liquid soaps, theatre sprays, insecticides, para and related sanitary products are backed by 31 years of compounding experience. Besides having a complete array of standard oils for this type of perfuming we are equipped to work out specialties designed for your particular use. May we be of service to you?

EVERGREEN CHEMICAL CO., INC.
160 FIFTH AVENUE NEW YORK

Say you saw it in SOAP!

New Patents

(*From Page 89*)

an interlock for the means preventing one operator operating his controls while the other operator's control means is operative.

1,760,404. Soft Soap Dispenser. Patented May 27, 1930 by Frank M. Funk, Detroit, Mich. A soap dispenser comprising in combination a container arranged to receive a quantity of soft soap, a fan having one or more blades inclined from the vertical and arranged to be covered by, and to eject, the soap through an opening in the bottom of the container, a spindle fixed to the fan and extending upwardly, a pipe arranged to surround the spindle, the pipe and spindle having a clutch connection, a disc threadedly mounted on the pipe and arranged to move downwardly within the container to scrape the soap from the sides thereof as the pipe is rotated to turn the fan to eject the soap whereby, when the pipe is rotated in the opposite direction, the pipe and disc are disconnected from the fan and spindle and may be removed independently therefrom to facilitate filling of the soap container.

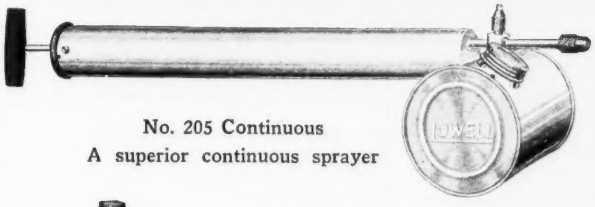
1,760,759. Sea Salt Soap. Patented May 27, 1930 by Louis C. Laurent, Denver, Col., assignor to Herbert J. Lenicheck, Denver, Col. A bath soap containing sea salt and a gluten binder.

No. 1,754,251. Process of Sterilization. Patented April 15, 1930, by John W. Yates, Madison, Wisconsin, assignor by mesne assignments, to General Laboratories, Inc., Madison, Wisconsin, a Corporation of Delaware. A process of disinfecting or sterilizing surfaces which consists in applying a dilute solution of sodium hypochlorite containing from one hundred to five hundred parts of available chlorine per million parts of water by atomizing the solution in applying the same whereby the carbon dioxide in the atmosphere reacts with the hypochlorite solution to form hypochlorous acid in effective strength for the purpose set forth.

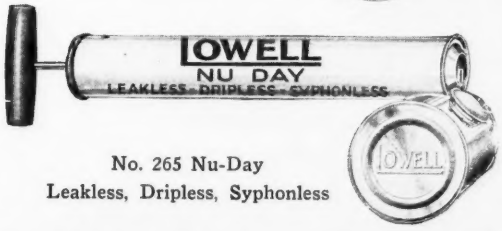
No. 1,753,887. Manufacture of Insecticides. Patented April 8, 1930, by Walter Henry Groombridge, Deptford, London, England, assignor to Arthur J. Dickinson Limited, Deptford, London, England. In a method of manufacturing collodial alkali metal silico fluorides the steps of adding 14 parts by weight of ammonium silico fluorides in a solution of 130 parts and 5 parts of caustic soda to 280 parts of soft

THREE OUTSTANDING PATTERNS

FOR THE INSECTICIDE, DISINFECTANT AND EXTERMINATING TRADE



No. 205 Continuous
A superior continuous sprayer



No. 265 Nu-Day
Leakless, Dripless, Syphonless

No. 80 Baby Fountain
Without an equal for exterminating purposes

LOWELL SPRAYER CO.

LOWELL, MICH. U. S. A.

IG-WAX E
IG-WAX OP

SUPERIOR TO CARNAUBA WAXES
in
HARDNESS, UNIFORMITY AND PURITY
SUPERIOR OIL-BINDING PROPERTY
LIGHT SHADE — EXCELLENT LUSTRE

GENERAL DYESTUFF CORPORATION

Sole Distributors in the U. S. A. of the dyestuffs manufactured by
I. G. FARBENINDUSTRIE AKTIENGESELLSCHAFT,
Frankfurt a. M., Hoechst a. M., Leverkusen a. Rh., Ludwigshafen a. Rh.
and by
GENERAL ANILINE WORKS, Inc.
Albany, N. Y., and Grasselli, N. J.

BOSTON
PROVIDENCE
PHILADELPHIA

230 FIFTH AVENUE, NEW YORK, N. Y.

CHARLOTTE
CHICAGO
SAN FRANCISCO

LETHANE

(Pat. App. For)

Synthetic Insecticidal Bases

Under the name LETHANE we offer a series of new, organic compounds of proven insecticidal value. The LETHANE products possess definite advantages in quality, uniformity and economy which mark the beginning of a new era in the scientific manufacturing of contact and fumigatory insecticides.

Office
222 W. Washington Sq.
Philadelphia, Pa.

Röhm & Haas Co., Inc.

Works
Bristol, Pa., and
Bridesburg, Pa.

Say you saw it in SOAP!

potash soap having a fatty acid content of 12.6% in water, maintaining the temperature below 30° C. and making up the resulting product to about 3 times the volume of the ammonium silico fluoride solution, the reagents being agitated during mixing.

Pyrethrum Tests

(*From Page* 109)

five minutes increased the kill by 22%. Doubling the exposure, or twenty minutes, gave a 30% increase, while trebling the period of exposure yielded but slightly higher results. We do not consider these figures as final, but they represent our findings to date and cover the trends on a series of 12-18 individual tests, and are indicative of what may be expected in the practical utilization of pyrethrum extracts. It is of interest to know that seldom are mortalities of 100% secured, even under laboratory conditions, although quantities of extract in excess of that which would normally be employed have been used.

While a majority of the work conducted in a laboratory may be considered as theoretical, we are always concerned with information of practical interest to the industry. It was our good fortune to secure the cooperation of the *Good Housekeeping* Institute in conducting a series of tests and in making a survey to ascertain the familiarity which American women have with insecticides of this type and the quantity of such material ordinarily used. The results of these studies will be forthcoming shortly, but you will be certainly interested to know that in this representative cross-section we secured a figure of roughly 15 cc. of insecticide per 1,000 cubic feet as the average amount employed by women familiar with such materials for the destruction of flies. These women exhibited a real interest in the tests. The number of homes in which insect control measures are employed was amazing as were the numbers in which liquid products were used. With this figure, converted to laboratory terms, effective results are not secured with products common in the trade, nor do we find that when this quantity is doubled too the results exhibit a satisfactory magnitude of kill.

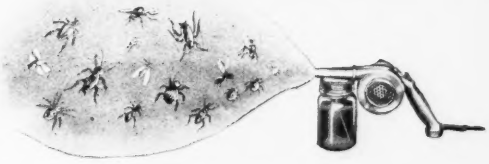
IN interpreting the results of a long series of biological tests, it is advantageous for the technician to be wholly familiar with his test insects both prior and subsequent to their use as test animals. The normal mortality of the strain, particularly at the age at which they are used is needed as is also the expected mortality from the solvent alone. These we have

Breuer's Tornado Electric Sprayers

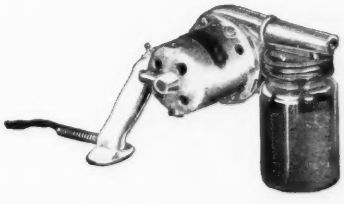
Have done more to

INCREASE THE SALE OF INSECTICIDES

than any other one thing in the industry.



You may have the best insecticide manufactured but have you the proper method of spraying it? The Tornado Electric Sprayer is your answer. It is the most powerful and efficient machine of its type on the market; sprays all liquid insecticides, disinfectants and germicides a distance of 8 to 10 feet, breaking it up into a fine mist which will float in the air and penetrate all cracks and crevices. Tornado sprayers are so easy to use and give such satisfactory results that they are used more often, increasing the use of your product. Supply your customers with these machines and watch your sales increase.



THOUSANDS IN USE!

Tornado Electric Sprayers have been regarded as standard equipment for years by leading manufacturers of insecticides and disinfectants. Thousands are in use in mills, warehouses and institutions of all kinds as well as in the home.

The Model 50 equipped with G. E. Universal motor weighs but 3 lbs. Operates at very low cost.

Write TODAY for further information and prices.

BREUER ELECTRIC MFG. CO.

862 Blackhawk St., Chicago, Ill.

Special odors for liquid soaps

FRESIA L. S.

Flowery and refreshing, this unusual odor stands up particularly well in liquid soaps. It is completely soluble and is economical to use. May we submit a sample?

LILAC L. S.

A new composition designed especially for use in liquid soaps. It is completely soluble and is reasonably priced. Would you like to try a sample in your own product?

Also Special Odors for

Cake Soaps — Sprays — Disinfectants — Para Products

POLAK'S FRUTAL WORKS, INC.

350 WEST 31ST STREET NEW YORK CITY

Chicago Office — 800 North Clark St.

Merchandise Economically

Bath Soaps and Soap Powders in

Contents are always visible, clean and fresh.

Envo-Glass Envelopes come gummed or not, in plain or embossed paper, open at side or end, printed attractively in colors, while 90 stock sizes insure prompt delivery. Special sizes to order.

SAFETY FOLD SIFT-PROOF ENVELOPES are perfect for use with fine powders.

GLASSINE PAPERS

Comes in rolls or flat, plain or embossed.

USE ENVO-GLASS PRODUCTS

They are practical and economic.

(*Call CANal 0699 Ext. 5*)

THE ENVO COMPANY

266½ Canal St., New York, N. Y.

Say you saw it in SOAP!

found to aggregate a 6% kill, the balance therefore being attributable to the pyrethrum in the insecticide.

After a test has been made and the operator is checking the number of flies killed by the insecticide, it is imemdiately apparent that all of the flies are not just "dead" or "alive," but many will be found which exhibit a condition of partial paralysis sixteen to twenty-four hours after their removal from the test chamber. After several months of study of this matter, we have found that these partially recovered individuals readily fall into two groups, in one of which less than 4% recover ultimately, these being those flies which are incapable of giving more than feeble leg or abdominal movement on being brushed across a sheet of paper; the other group in which about 70% recover, consisting of flies which possess the ability to remain upright and to crawl about.

We have not found an appreciable difference in the mortality secured when flies which have been used for test purposes are maintained with and without food in the recovery cages. In the method which we follow these individuals are given water, but no food material. It has been our experience, however, that in testing an unknown product we secure results which are more satisfactory for comparison when we conduct our tests over a period of several days time rather than on a lot of flies which are aged for test purposes on a particular day. This reduces the niceties of correlation frequently secured with a single lot of flies but yields figures which for probability's sake are more suited to the strain as it varies from day to day and offers figures which six months hence can be compared to results secured during the present week.

Regardless of the test insect employed for the determination of toxicity, deviations in the results will appear, the magnitude of which may only be reduced by a careful safeguard and control of the factors which accentuate such variations. Although a rapid method of chemical assay would materially assist in culling good flowers from poor ones, the ultimate determination of toxicity lies in practical tests conducted upon live insects.

A newly patented detergent and disinfectant mixture consists of ground sodium-acid sulfate (with or without anhydrous sodium sulfate mixed with three to ten percent of ferrous sulfate or with a sulfate of aluminum, chromium, cobalt, nickel or a sulfate of one of the various other metals or a double sulfate of potassium and chromium, aluminum and potassium or aluminum and sodium. Brit. Pat. No. 318,758.

HUDSON SPRAYERS

play an important part in the development of insecticide sales.

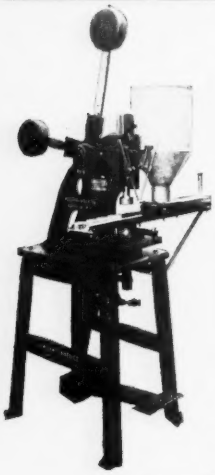
H. D. HUDSON MANUFACTURING CO.

578 East Illinois Street North Pier Terminal Bldg.

CHICAGO, ILLINOIS

New York City 147 Chambers St. | Kansas City 1222 W. Twelfth St. | Philadelphia Dela. & South Sts. | San Francisco 7 Front St. | Minneapolis 324 3rd Ave., N.

HOUCHIN



Machine-Made

DEODORIZING BLOCKS

Sell Best!

Blocks made with this press, by the new cold pressed method, sell better and cost much less to make. Save 5% of your raw material, cut labor, and make a smooth, even, deodorizing block that will please your customers much more than the old style, irregular blocks. Complete cost details and manufacturing suggestions on request.

Let us make some sample cakes with your own material.

HOUCHIN MACHINERY COMPANY
Hawthorne, New Jersey

SOAP MACHINERY

SHAMPOO BASE
SHAMPOO POWDER

in BULK
and
under Private Brand

The base dissolves easily in soft water alone into a water clear liquid with no disagreeable odor. The finished shampoo cannot be surpassed in quality by any now on the market. Shipped in barrels of 450 and 270 pounds, kegs of 100 lb. or in pails of 50 pounds. The powder is manufactured from the purest and best ingredients. Ready for you either in bulk or packaged under your own brand.

Makers also of shaving soap, cream and milk medicated soaps and toilet soaps.

GEO. A. SCHMIDT & CO.

236 West North Ave., Chicago

Lemon—Orange—Bergamot Oils
Spinelli Brand
Manufactured by
CITRUS OILS CO.
Messina, Italy

FINEST ITALIAN TALC
Produced by
ENRICO TRON & CO.
Leghorn, Italy

Olive Oil — Olive Foots

Cresylic Acid

LEGHORN TRADING CO., Inc.
59 PEARL STREET, NEW YORK

Boston Philadelphia
Italy Levant Spain

A 35 Year Old Insecticide Line with Money-Back GUARANTEE

For 35 years, Edgar A. Murray Insecticides have met the needs of the janitor supply trade satisfactorily. Those who sell them have found them absolutely reliable and uniform in quality at all times.

So sure are we that you, too, will be pleased with them that we offer them to you with an iron-clad money-back guarantee —"No Riddance, No Pay."

If you are not handling a line of guaranteed insecticides, get the Edgar A. Murray proposition. Mail the coupon TODAY for complete information, prices and discounts.

EDGAR A. MURRAY CO.
2729 GUOIN STREET DETROIT, MICH

A Complete Line of Six Guaranteed Insecticides

Fly, Ant, Rat, Bug, Mosquito, Moth

DOOM

MAIL THIS COUPON TODAY

EDGAR A. MURRAY CO.
2729 Guoin Street, Detroit, Mich.

Gentlemen:—Please send us further information regarding your insecticide line, prices, discounts, etc.

FIRM NAME .....
ADDRESS .....
CITY..... STATE.....

Say you saw it in SOAP!

1930